

King Saud University, College of Dentistry
Department of Pediatric Dentistry and Orthodontics
Division of Orthodontics and Dentofacial Orthopedics

COURSE SYLLABUS
PDS 431- INTRODUCTION TO ORTHODONTICS [MUC]
ACADEMIC YEAR 2011— 2012G [1432-1433H]

Course Code and Number: PDS 431
Course Name: Introduction to Orthodontics
Credit Hours: Four Credit Hours (1 Lecture + 1 Laboratory Session, per semester)
Pre-Requisites: None
Course Level: Offered in the 1st and 2nd semesters of the fourth year (Level #6)
Room: 2001 and Phantom Laboratory, 2nd floor
Time: Tuesday; Lecture: 8:00-9:00 am, Laboratory Session: 9:00-12:00 pm

Course Director: Dr. Sahar ALBarakati

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Dr. Aljazi ALJabaa
Dr. Nadia ALKhamis
Dr. Nada Alshihah

COURSE DESCRIPTION:

Knowledge of the basics of orthodontics is essential for the dental students. Through a series of lectures and practical sessions, this course will provide the undergraduate

students with the background of the growth and development of dentofacial structures, characteristics of normal occlusion, etiology and diagnosis of malocclusion and the treatment of occlusal discrepancies. In addition, the course will expose the students to the various orthodontic records and it will prepare the students to analyze them and interpret the findings. The course also allows the students to recognize different orthodontic appliances and know their proper management.

The course consists of:

- Lecture (one hour)
- Practical session (three hours).

COURSE GOAL:

The graduate of the Bachelor in Dental Surgery Program (B.D.S.) must be skilled in the recognition, diagnosis, and management protocols of dentofacial abnormalities in the primary, mixed, and permanent dentitions.

COURSE OBJECTIVES:

This course aims to qualify the students to:

1. Have knowledge of normal and abnormal growth and development of dentoskeletal facial structures including conditions that interfere with the patients’ ability to function.
2. Have sufficient knowledge to be able communicate with the orthodontic specialist and understand the nature of the treatment being rendered, along with the proper referral timing.
3. Have a thorough understanding of etiology and classification of malocclusion, diagnosis, and treatment planning of orthodontic problems.
4. Recommend early and comprehensive orthodontic management that should be carried out at the correct time.
5. Be able to recognize and understand the different types of removable and functional appliances and its mode of action.
6. Be able to recognize the fixed orthodontic appliances and its components, and develop the wire bending skills.

COURSE EVALUATION:

The students will be evaluated by their performance during the course. The total grade is 100%, and it is distributed as follows:

Continuous Assessment						Final Exam.		Total
1 st Mid-Term Exam.	Lab Quizzes	Mid-Year Exam.	2 nd Mid-Term Exam.	Case Presentation	Weekly Evaluation	Practical	Written	
10	4	15	10	6	15	10	30	100

a. Didactic section evaluation:

There will be four examinations, two mid-terms, one mid-year and one final. Mid-terms will be 1 hour in length and each examination will consist of 30-40 multiple-choice questions (MSQs). The material covered in the examinations will be taken from required textbook and any handout given to students by instructors. In the mid-year and final examinations, 60-80 MCQs will be included in an examination booklet with answers recorded on standard scoring sheets. Examinations are given in three drafts and questions are scrambled according to college policy. New examinations with different questions are formulated each year so having old examinations might be of limited value. At the end of each examination session both the computer answer sheet and the signed original copy of the examination must be handed in to the proctors.

The distribution of the topics included in each didactic exam is as in the time table and Final Written Exam will include all lecture materials presented during the first and second semester.

b. Practical section evaluation:

Student's performance in the practical sessions and the laboratory projects will be evaluated weekly and that will constitute 15% of the total grade. A student who attends on time to the demonstration and completes the task by the end of each session in a good quality (based on the instructor's evaluation) should secure the total assigned mark.

Students will be assigned in groups of two persons, and each group must present one case (representing one of the two students) on a specified day. Failure of the group to present in that day will result in a complete loss of the mark. As a substitution, and based on the approval of the course director, that group can present in the following week. However, the presenters will be evaluated out of half of the original mark (i.e. out of 3, instead). The grades' distribution for the case presentation is as follows; 2 marks for the pictures quality of the diagnostic tools (photos, models, RG), 2 marks for the accuracy of the findings presented, and 2 marks for the demonstration of understanding of the material presented.

The distribution of the topics included in each practical exam is as follows:

1. Two quizzes on some specific topics concerning the laboratory section.
2. Final Practical Exam.:

The following topics must be reviewed as appeared in the practical manual; classification of malocclusion, model analysis (permanent and mixed dentition), hand and wrist RG and cephalometric analysis, identification of instruments/ appliances and its relevant notes.

Grading System: Grades will be determined using the following scale:

A+	100 - 95	C	74 – 70
A	94 – 90	D+	69 – 65
B+	89 – 85	D	64 – 60
B	84 – 80	F	< 60

Remediation: Midterm Failure: Individual student failing the midterm reviews the exam with the course director.

STUDY PLAN AND REQUIREMENTS:

To receive the maximum benefit from this course, students must attend all lecture and laboratory sessions. A large emphasis of this course is placed on the practical applications of the principles of orthodontics, which are presented in a variety of formats including lectures, practical exercises and demonstrations.

Satisfactory completion of this course requires:

1. Attendance in lectures and laboratory is mandatory. Twenty-five percent (25%) of absence from the lecture or laboratory sessions will deprive the student from taking the final examination (University Rules & Regulations). Attendance is checked every week.
2. A minimal passing grade of 60% must be achieved of the combined grades of the didactic and laboratory components.

The practical tasks completion requires dividing students in groups of two persons. Each student will be assigned with a fellow student according to his preference; otherwise, the course director will complete this process. Each student must note that all the tasks during the laboratory sessions will be completed using the records of each student's fellow (i.e. the other person in your group). Therefore, during the process of students' assignment into groups, care must be taken not to result in a group where both students are undergoing orthodontic treatment. If your colleague has braces on, take a duplicate for your case (models and ceph.).

STUDENT EXPECTATION:

Out of respect for our lecturers, it is kindly asked that students' attention is on the lecture being presented and that they interact, as much as possible, with the presenter. Students are expected to present professionalism by not focusing attention on other materials such as other class notes and text, preparation for other exams, etc. Students are expected to demonstrate punctuality for every lecture and laboratory sessions. Students are also expected to demonstrate preparedness for laboratory sessions with respect to bringing the necessary instruments and the laboratory manual, this ensure that practical time is used effectively and efficiently (see below for more details).

POLICY ON ATTENDANCE AND PERFORMANCE:

Due to the interactive and participatory nature of this course, attendance at each class session is required. If you miss a class as an unexcused absence, your instructor reserves the right to require the completion of additional coursework. If you are unable to attend class due to a medical or family emergency, you should contact the course director and

submit an excuse in writing. Attendance will be taken at every didactic and practical session throughout course period. Lectures are given to enhance students' understanding of course topics and complement their assigned readings. The lectures are not a replacement for course readings and assignments. In order to maximize teaching and learning, students are expected to attend all lectures.

a. Lecture Attendance:

All students are welcomed to join the class at any time of the lecture. However, any student enters the classroom ten minutes after the beginning of the lecture will not be allowed to sign-in his attendance.

b. Practical Attendance:

The materials presented in the practical session are new to the students and not exposed to them before. Attending the demonstration held by the beginning of each practical session on time is essential for the student to be able to complete the required task effectively and efficiently. A practical manual is distributed to each student by the beginning of the academic year to ensure a smooth progression and knowledge acquisition. Hence, the practical manual must be presented with each student by the beginning of each practical session along with any required tools to complete the task. Failure to do so will result in either inability to perform the task or/and a disturbance to the instructor or a fellow student. Therefore, any student join the demonstration five minutes after its beginning and/or fail to bring the practical manual along with the required tools (as indicated in course schedule) will lose half of the mark of the grade assigned for that task. All exercises and practical tasks are expected and must be performed by the student *independently* after the laboratory instructor or technician's demonstrations. However, inter-personal communication and inquiry with fellow students regarding the assigned task are allowed.

POLICY REGARDING INCOMPLETE GRADES / PRACTICAL TASK:

Compromised coursework and performances are regarded as a major inconvenience for both students and the instructor. To avoid this situation, students are expected to complete each task to the best of their knowledge and/or skills. It is the responsibility of the student to notify the course director of such circumstances as far in advance as possible. It is the course director's responsibility to provide reasonable accommodations/opportunities to make up examinations that have an impact on the course grade. The Academic Guidance Committee reviews all student failures. The ultimate decision for remediation for students in academic difficulty lies within their authority.

Due to the significant role of the practical section in fulfilling the course objectives, students are required and motivated to attend all practical sessions. All practical tasks are needed to be completed and handed-in for evaluation by the end of each practical session. Except where specified in the course schedule, none of the practical task presented after the end of the session will be qualified for grading. If so, or in case a student didn't attend a practical session, he'll be still required to present the finished

task by the beginning of the next session, however without its assigned grade. The information provided during that missed session can be reviewed based on the student's on inquiry.

GRADE DISPUTE:

If a grade that is assigned to an exam or a question and/or its answer is to be disputed by a student, it must be done so in writing within 24 hrs after receiving the results. A specific rationale for why a question or answer requested to be reviewed should be included. Any global changes in grading will be considered for the entire class.

POLICY ON MAKE-UPS:

Excused absences that are unavoidable will be offered an alternate midterm or final exam with different questions (including essay and short notes), and the level of difficulty between the original and the makeup exam will be similar but not the same.

In accordance with the college's policy, this course (431 PDS) has no make-up examination. Students who fail to get 60% of total course grade will be required to take the course again the following year.

STUDENT ACADEMIC INTEGRITY AND SCHOLASTIC DISHONESTY:

Scholastic misconduct is broadly defined as "any act that violates the right of another student in academic work or that involves misrepresentation of your own work. Scholastic dishonesty includes, (but is not necessarily limited to), cheating on assignments or examinations; depriving another student of necessary course materials; or interfering with another student's work." Students preparing for entry into the dental profession are expected to govern their conduct toward patients, other students, faculty, and other professionals with integrity, mutual respect, and honor. Scholastic misconduct will result in failure of the course and the course will be required as a retake during the following year.

COMMUNICATION:

All individual and full class communication will be either through your e-mail account or through your Class Representative. Announcements intended for the whole class will be sent by e-mail and/ or posted on the course director's website. It is a requirement of the course to check your e-mail daily. While in class, please turn off pagers and cell phones.

RECOMMENDED TEXTBOOK:

- An Introduction to Orthodontics, Third Edition
Laura Mitchell

2007, Oxford: Oxford University Press.

ISBN: 0198568126

Also, some lectures refer to selected chapters of the following textbooks:

- Contemporary Orthodontics, Fourth Edition
William R. Proffit, Henry W. Fields and David M. Sarver
2006, Saint Louis: Mosby, Inc.
ISBN: 0323040462
- Introduction to Orthodontics, Second Edition
Birgit Thilander and Olli Rönning
1995, karlshamn: Gothia
ISBN: 9172050004

PDS 431 – INTRODUCTION TO ORTHODONTICS (MUC)
COURSE SCHEDULE
FIRST SEMESTER

WEEK	DATE	LECTURE Sunday, 8:00-9:00 am Room 27/GA	PRACTICAL * Sunday, 9:00-12:00 pm Phantom Lab.
1	13 SEPT 2011	Introduction to the Course Dr. AlBarakati	Introduction to the laboratory
2	20 SEPT 2011	Facial Growth (L.M., 4, 30-41) Dr. Baidas	Study Models – I - Impressions of students & pouring
3	27 SEPT 2011	Facial Growth (L.M., 4, 30-41) Dr. Baidas	Study Models – II - Demo. of model trimming & finishing
4	4 OCT 2011	Developing Dentition (L.M., 3) Dr.AL Khamis	Study Models – III - Demo. of model trimming & finishing <i>Deadline for models' delivery, the beginning of next session</i>
5	11 OCT 2011	Etiology of Malocclusion (Thilander, pages 88-93) Dr. ALJaba'a	Radiographs (OPG, Occlusal, P-A) <i>Students are reminded to start taking their own Ceph.</i>

6	18 OCT 2011	Orthodontic Assessment (L.M., 5)	Hand & Wrist Radiographs + CVS
		Dr. AlBarakati	<i>Final date for presenting Cephalometric images</i>
7	25 OCT 2011	Cephalometrics I (L.M., 6)	Cephalometrics I **
		Dr. AlBalbeesi	- Tracing & Landmark Identification
8	1&8 NOV 2011	Hajj Holiday	
9	15 NOV 2011	Cephalometrics II (L.M., 6)	Cephalometrics II **
		Dr. AlBalbeesi	- Measurement & Interpretation
10	22 NOV 2011	1st Mid-Term Examination	
11	29 NOV 2011	Class I (L.M., 8)	Models Analysis of Permanent Dentition(Nance and Bolton) **
		Dr. ALJaba'a	
12	6 DEC 2011	Class II div 1 (L.M., 9)	Models Analysis (Mixed Dentition) **
		Dr. AlKawari	
13	13 DEC 2011	Class II div 2 (L.M., 10)	Class I, II Div 1 Malocclusions - Description using models
		Dr. AlBarakati	
14	20 DEC 2011	Class III (L.M., 11)	Class II Div 2 , III Malocclusions - Description using models
		Dr.AL Khamis	
15	27 DEC 2011	Anterior open bite and posterior open bite (L.M, 12)	Lab Quiz and Classification of Malocclusion(exercise : 4) - Description using students' models <i>Students are reminded to receive their instruments' kit</i>
		Dr.AL Khamis	
16	3 JAN 2012	Crossbites (L.M, 13)	Review
		Dr.AL Khamis	
17	10 JAN 2012	Mid-Year Examination	

* All practical tasks must be **finished by the end of each practical session** and handed in for evaluation, except for the third week's task. And all students, kindly, **must bring their practical manual** for every practical session.

** All students must bring their own cephalometrics /or orthodontic models along with the following instruments; ruler,

90 degrees triangle, protractor, compass, and 0.5 mm pencil.

SECOND SEMESTER

WEEK	DATE	LECTURE Sunday, 8:00-9:00 am Room 27/GA	PRACTICAL * Sunday, 9:00-12:00 pm Phantom Lab.	
1	31 JAN 2012	Canines (L.M., 14)	Preparation for case presentation	
		Dr. AlKawari		
2	7 FEB 2012	Treatment Planning (L.M., 7)	Case Presentation	
		Dr. Baidas		
3	14 FEB 2012	Cellular basis of tooth movement and anchorage (L.M., 4, pages 41-47)	Case Presentation <i>Students are reminded to receive their instruments' kit</i>	
		Dr. ALShayea		
4	21 FEB 2012	Fixed Appliances (L.M., 18)	-Case Presentation / - Demo. of Orthodontic Appliances & Instruments Description (DOA&ID) **	
		Dr. AlBalbeesi		
5	28 FEB 2012	Removable Appliances (L.M., 17)	Removable App. Demonstration	-(DOA&ID)**/
		Dr. Baidas		-Wire Bending Exercises **
6	6 MAR 2012	Functional Appliances (L.M., 19)	Functional App. Demonstration	Wire Bending Exercises **
		Dr. AlBalbeesi		
7	13 MAR 2012	Adverse Effects of Ortho. Tx (Thilander, 9)	Adams Clasp on #16 **	
		Dr. ALShayea		
8	18 MAR 2012	Tx in Preadolescent Children (Proffit, 12, pages 436- 449)	Adams Clasp on #26 **	
		Dr. AlBarakati		
	21-30 MAR 2012	Mid-2nd Semester Break		
9	3 APR 2012	2nd Mid-Term Examination		

10	10 APR 2012	Adult Orthodontics (L.M., 20)	Bending of Labial Bow **
		Dr. ALShayea	
11	17 APR 2012	Orthognathic Surgery (L.M., 21)	Acrylization, Finishing of Hawley R. <i>Deadline for handing-in H.R., the beginning of next session</i>
		Dr. AlKawari	
12	24 APR 2012	Cleft Lip and Palate (L.M., 22)	Activation of Removable appliance** <i>Collection of Orthodontic tyopdont and appliances, through out this week</i>
		Dr. AlBarakati	
13	1 MAY 2012	Stability and Retention (L.M., 16)	Fixed Ortho. App. (Typodont) I
		Dr. AlKawari	
14	8 MAY 2012	Orthodontic First Aid (L.M., 23)	Fixed Ortho. App. (Typodont) II
		Dr. ALShayea	
15	15 MAY 2012	Review	Preparation for final practical examination
		Dr. AlBarakati	
16	20/5 – 6/6 2012	Final Examination	

* All practical tasks must be **finished by the end of each practical session** and handed-in for evaluation, except for the third week's task. And all students, kindly, **must bring their practical manual** for every practical session.

** Students must have their orthodontic models and wire bending instruments' kit ready by the beginning of the session.