

1	Course title	Orthodontics Practical-1
2	Course number	1303474
3	Credit hours (theory, practical)	0.5 credit hour practical
	Contact hours (theory, practical)	32 contact hours practical (2hours every other week)
4	Prerequisites/corequisites	None
5	Program title	Doctor of Dental Surgery (DDS)
6	Program code	NA
7	Awarding institution	The University of Jordan
8	Faculty	Faculty of Dentistry
9	Department	Pediatric dentistry, orthodontics and preventive dentistry
10	Level of course	Bachelor
11	Year of study and semester (s)	4th year – First and second semesters
12	Final Qualification	DDS
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	Sept.2022

16. Course Coordinator:

Dr. Mariam Al-Abdallah
m.alabdallah@ju.edu.jo
phone : 06-5355000 x23552

17. Other instructors:

1. Dr. Hanan Elayyan
2. Dr. Layan Mehyar
3. Dr. Amer Al-Hajjaj
4. Dr. Iman Sweity

18. Course Description:

This course is taught during the first and second semester of the 4th year. The aim of the course is to enable the students to understand different orthodontic terminologies and classifications systems. Students should also demonstrate the basic principles of orthodontic wire bending and removable orthodontic appliance (URA) design. Students will be able to understand the aetiology of malocclusion through small group discussions for different clinical cases. Later in the second semester, students will be able to understand the basic principle of cephalometric analysis and be able to report the findings. They will also be able to carry out space analysis for cases in the permanent and the mixed dentition.

19. Course aims and outcomes:**A- Aims:**

This course aims to provide the students with the manual skills to design and activate the various components of the removable appliances. It also helps the students to establish a connection between the theoretical and practical information through an interactive presentation of the clinical cases.

B-Intended Learning Outcomes (ILO's): upon successful completion of this course, students will be able to

- 1) Develop the manual skills of wire bending.
- 2) Understand the various components of orthodontic removable appliances.
- 3) Activate and adjust various components of the removable appliances.
- 4) Trace cephalometric radiograph and write a cephalometric report.
- 5) Understand the aetiology of malocclusion.
- 6) Perform different methods of space analysis.

20. Topic Outline and Schedule:**1st Semester (1 credit hour where student attends 2-hour session every other week)**

Session	Topic	Week	Requirements	Evaluation method
1	An introduction to orthodontics (terminologies and Classification of malocclusion	1-2	Clinical cases	Feedback will be given to the students without any marks
2	Introduction and Wire Bending Exercises	3-4	Hand in two pieces of bent wires (angles + coils).	Feedback will be given to the students
3	URA retentive component.	5-6	Review retentive components	Quiz on retentive components
4	URA active components	7-8	Review active components	Quiz on active components.
5	URA design and clinical cases	9-10	Fill URA lab form	Quiz on components. The supervisor will mark lab sheets with URA designs on the given scenario
6	URA design and clinical cases	11-12	Fill URA lab form	Quiz on components. The supervisor will mark lab sheets with URA designs on the given scenario
7	Aetiology of malocclusion	13-14	Clinical cases and group discussion	Quiz on aetiology

*References: The lab manual and the references specified in theoretical courses and the video uploaded on eLearning

Orthodontic Lab Schedule – 4th Year**2nd Semester (1 credit hour where student attends 2-hour session every other week)**

Session	Topic	Week	Requirements	Evaluation method
1	Lateral cephalometric tracing: identification of points and planes	1-2	Identification of points and planes on the lateral cephalometric tracing	The Supervisor will ask the students to identify and define different points and planes
2	Lateral cephalometric tracing: measurements and report	3-4	Measurements and fill the cephalometric table	The supervisor will mark the report
3	Lateral cephalometric tracing- Interpretation of the Cephalometric values for different clinical cases	5-6	Group discussion based on clinical cases	Quiz or viva
4	Provision of space and space analysis	7-8	Hand in space analysis report	The supervisor will mark the report of space analysis in the permanent dentition
5	Provision of space and space analysis	9-10	Hand in space analysis report	The supervisor will mark the report of space analysis in the mixed dentition
6	Competencies and review	11-12		URA design, Space analysis & Cephalometric report
7	Exam	13-14		URA design, Space analysis & Cephalometric report

*References: The lab manual and the references specified in theoretical courses and the video uploaded on eLearning

21. Teaching Methods and Assignments:

Duration: 32 weeks (2 exam weeks + 30 teaching weeks)= (60 teaching hours in total).

Practical Sessions: 1 session of 2 hours every 2 weeks over 30 weeks.

Online materials related to the lab exercise will be posted on the e-learning website. It's the students' responsibility to watch the online materials and prepare for the session. Questions will be allowed at the beginning of the lab.

22. Evaluation Methods and Course Requirements:

1- During the year the students will be evaluated through (60 % of the final mark):

- The wire bending exercise (5 marks).
- URA components (5 marks X 2)
- URA design (5 marks X 2).
- Aetiology of malocclusion (5 marks)
- The Cephalometric analysis reports (5 marks X 3).
- Space analysis report (5 marks X 2).
- Code of conduct (5 marks)

2- The final exam will account for 40% of the final mark. It will include:

- URA design (15 marks).
- Lateral ceph point identification (15 marks).
- Space analysis report (10 marks).

Course work requirements:

1. Hand in two wire bending exercises
2. URA components and design exercises.
3. Hand in full lateral cephalometric tracing and report.
4. Hand in report on space analysis.

Competencies:

1. URA design on a lab form.
2. Lateral cephalometric tracing and report.
3. Space analysis report

23. Course Policies:

A- Attendance policies: Students are allowed 15% absence according to the laws of the university. This stands for 2 clinics for 5th year students in the Orthodontic practical course.

B- Absences from exams and handing in assignments on time: Any student who comes late to the lab will lose the marks of the quiz of that lab.

C- Health and safety procedures: students should adhere to all the stated rules and regulations regarding safety, cross infection control and patient care.

D- Honesty policy regarding cheating, plagiarism, misbehaviour: students should adhere to all the stated rules and regulations regarding professional conduct.

24. Required equipment:

- Protective eye glasses
- Marker (preferably a wax tip pencil to mark on the wire, ordinary lead pencils could be used but the mark is difficult to see)
- Adam's Universal pliers (has two square tips)
- Spring forming pliers (has one square and one round tip)

25. References:**Suggested text book:**

- Removable Orthodontic Appliances, 1st edition by K. G. Isaacson FDS MOrthRCS (Eng) , R. T. Reed BDS FDS MOrth RCS (Eng) RCPS(Glas) , John D. Muir BDS FDS MOrth RCS(Eng).
- Orthodontic Retainers and Removable Appliances: Principles of Design and Use by Friedy Luther and Zararna Nelson-Moon.

Name of Course Coordinator: Dr. Mariam Al-Abdallah. Signature: ----- Date: Sept. 2022

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- Signature: -----

Orthodontic department

Student Name: _____ Group: _____

First semester				
Session	Requirements	Date	Competent	Mark
First	Orthodontic terminologies and classifications of malocclusion	/ /	N/A	None
Second	Wire bending exercise	/ /		/5
Third	URA retentive components	/ /		/5
Fourth	URA active components	/ /		/5
Fifth	URA design on clinical cases	/ /		/5
Sixth	URA design on clinical cases	/ /	N/A	/5
Seventh	Aetiology of malocclusion	/ /	N/A	/5
Second semester				
Session	Requirements	Date	Competent	Mark
First	Ceph analysis	/ /		/5
Second	Ceph analysis and report	/ /		/5
Third	Ceph clinical cases and reports	/ /		/5
Fourth	Space analysis (permanent dentition)	/ /		/5
Fifth	Space analysis (mixed dentition)	/ /		/5
Sixth	Competencies and review	/ /	N/A	
Seventh	Final exam	/ /		/40
Code of Conduct		Absences	Other	/5

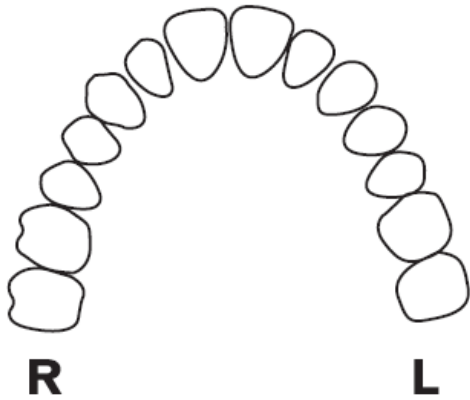
Orthodontic Laboratory Request Form

Patient name:..... **Date:**.....

Student: **Group:**.....

Supervisor:.....

Appliance Design:



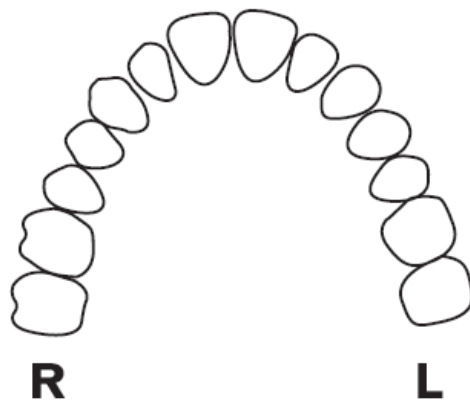
Orthodontic Laboratory Request Form

Patient name:..... **Date:**.....

Student: **Group:**.....

Supervisor:.....

Appliance Design:



Cephalometric Report					
Date:		Name:		Group	
Eastman analysis:					
variable	Normal value	Measured value	variable	Normal value	Measured value
SNA	81		MMPA	27	
SNB	78		ALFH%	55%	
ANB	2-4		UIMxP	109	
SN-MxP	5-11		LIMnP	93	
Corrected ANB	2-4		IIA	135	

Cephalometric and Prognosis Tracing Report:

1. Skeletal relationship:

2. Dental relationship:

Space analysis form

Mixed dentition analysis equation for Jordanians:

Upper arch: $10.94 + (\text{measured mesio-distal width of lower incisors} \times 0.46)$

Lower arch: $8.43 + (\text{measured mesio-distal width of lower incisors} \times 0.55)$

Lower arch:

- Lower central and lateral incisor width: () mm

- Space available: () mm

- Space required: () mm

- Space condition:

- Spacing: () mm

- Crowding : () mm Mild / Moderate / Severe

Upper arch:

- Space available: () mm

- Space required: () mm

- Space condition:

- Spacing: () mm

- Crowding : () mm Mild / Moderate / Severe