The University of Jordan

Faculty of Dentistry

Department of Paediatric Dentistry and Orthdontics

2011/2012

Course Title: Orthodontic Laboratory Practical 1

Course Code: 1303474

Semester: 1st & 2nd / 4th year

Prerequisite: None

Department: Paediatric Dentistry and Orthodontics.

Module Coordinator(s): Dr Mariam Al-Abdallah

Instructor (s):

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Course Objectives:

The objectives of this course are:

- Demonstrate the basic principles of orthodontic wire bending and develop the manual dexterity and skills involved in wire bending.
- Develop an understanding of various components of orthodontic removable appliances.
- Describe the design criteria for the various components of removable orthodontic appliances.
- Develop the manual skills necessary for the construction of various retentive and active components of removable orthodontic appliances.
- Demonstrate the basic techniques of the construction of acrylic baseplates.
- Describe the principle behind cephalometric radiography; demonstrate the indications for lateral skull radiography in clinical practice and the technique of cephalometric tracing.
- Demonstrate the indications for orthodontic study models and the basic technique of trimming of study models.

Learning Outcomes:

Successful completion of this module should lead to the following learning outcomes:

A. Knowledge and Understanding (student should)

1. Understand the various components of orthodontic removable appliances.
2. Describe the design criteria for the various components of removable orthodontic appliances.
3. Understand the basic techniques of the construction of acrylic baseplates.
4. Describe the principles behind cephalometric radiography, the indications for lateral skull radiography in clinical practice and the technique of cephalometric tracing
5. Understand the indications for orthodontic study models and the basic technique of trimming of study models.

B. Intellectual skills - with ability to

1. Differentiate between the indications for various active and retentive components of removable appliances
2. Interpret the cephalometric analysis values

C. Subject specific skills – with ability to

1. Satisfactorily complete a series of wire bending exercises.
2. Satisfactorily construct various retentive and active components of removable orthodontic appliances.

D. Transferable skills – with ability to

1. Differentiate between correctly constructed removable appliances from faulty ones.
2. Differentiate between correctly trimmed orthodontic study models from faulty ones.
3. Satisfactorily diagnose the features of various malocclusions based on cephalometric radiographs.

Teaching Methods:

- Duration: 16 weeks, (32 hours in total).
- Laboratory: 1 session every 2 weeks

Requirements:

- Instruments:

- 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)
- Maun's cutters

- Marking system:

- Evaluation system:
    - Wire bending assignments, exams during the semester, and quizzes will account for **60%** of the final score.
    - Final exam will account for **40%** of the final score.

- Attendance:
    - Students are allowed 15% absence according to the laws of the university. This stands for 2 labs for 4th year students.
    - Any student who comes late to the clinic will lose the mark for the punctuality, and he/she will lose the marks of the quiz of that lab.

References and reading materials*:*

1. Orthodontic laboratory notes (Eastman Dental Institute, University of London).
2. Orthodontic laboratory notes (University of Glasgow).
3. Tooth movement with Removable Appliances Textbook (J.D. Muir & R.T. Reed, 1979).
4. Orthodontic and Orthopedic Treatment in the Mixed Dentition Textbook (J. McNamara & W. Brudon, 1993).
5. An Introduction to Orthodontics Textbook (L. Mitchell, 2007).
6. Removable Orthodontic Appliances Textbook (K.G. Isaacson & J.D. Muir, 2002).