

The University of Jordan
Faculty of Dentistry
Department of Conservative Dentistry
2011/2012

Course Title: Conservative Dentistry Practical (1)

Course Code: 1302316

Semester: 1st and 2nd semesters third year students

Prerequisite: None

Department: Conservative Dentistry

Module Coordinator(s): Dr Yara Oweis

Instructor (s):

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Dr Ehab Rassas	
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Dr Rawan Abu Zaghlan	

Course Objectives:

The objectives of this course are:

- To improve the manual dexterity of the students.
- To teach the students the use of instruments used in Operative Dentistry.
- To provide the students with the fundamental practical skills of Operative Dentistry necessary to be able to deal with patients that needs operative treatment in a clinical setting.
- To allow the students to apply the concept and principles of cavity preparation they have learnt, in a simulated clinical setup.
- To allow the students to apply the theoretical knowledge in restorative materials and techniques practically in a simulated clinical setup.
- To introduce the students to the biological considerations in operative dentistry, caries detection and the management of grossly carious teeth.
- To introduce the students to the concepts of esthetic dentistry including color science and discoloration of dentition

Learning Outcomes:

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

- Students should gain practical skills of the concepts, principles and theories related to Operative Dentistry.
- Students should be able to identify and use hand cutting and rotary instrument in addition to other devices used in the practice of Operative Dentistry.
- Students should be able to use their allocated unit and position themselves in the correct position throughout the simulated clinical exercises.
- Students should be able to prepare and restore all types of cavities applying the proper and modern principles in cavity preparation for all direct restorative materials.

- Students should be able to perform the required task from the first try to an acceptable level and should be able to identify and correct their own mistakes.
- Students should be able to practice the indirect technique using the mouth mirror during cavity preparation and other restorative procedures.

Students should be able to apply the concepts of esthetic dentistry

A. Knowledge and understanding, student should:

- Develop a wide range manual skills needed for the applications of the basic principles of Operative Dentistry and management of dental lesions.
- Have in depth knowledge in the principles and detailed features of different types of cavity preparations for metallic and tooth-colored restoratives.
- Develop a wide range knowledge and understanding of the instrumentation used in Operative Dentistry and the handling techniques for the restorative materials employed.
- Be able to discuss and explain the biological aspects of operative dentistry.
- Be able to discuss and explain the concepts of esthetic dentistry

B. Intellectual skills, with ability to:

- Apply the knowledge of the basic dental sciences (dental anatomy, histology and dental caries) within the context of Operative Dentistry.
- Understand and relate the properties and behavior of restorative dental materials to the concepts behind cavity preparation.
- Understand and appreciate the biological aspects of Operative Dentistry and material applications in Operative Dentistry.
- Integrate the knowledge and understanding of the esthetic needs and consideration with the properties and limitations of clinical dental material.

C. Subject specific skills, with ability to:

- Classify different classes of carious and non-carious lesions and clinically apply the principles and the specific features of cavity preparation for metallic and tooth-colored restoratives.
- Identify and explain the uses of instruments used in Operative Dentistry.
- Select and handle various restorative dental materials used in the restoration of the prepared cavities properly, safely and efficiently.
- To discuss and explain the biological aspects of operative dentistry.
- To discuss and explain the concepts of esthetic dentistry and color science.

D. Transferable skills, with ability to:

- Utilize the modern sources of information such as the internet and data basis to develop and update the knowledge in the field of Conservative Dentistry.
- Appreciate the importance of clinical and laboratory based research in the development of new categories of restorative dental materials.
- Understand the importance of Operative Dentistry as a part of an integrated treatment plan that cover the dental needs of a patient and the importance of consultation with other specialties, referral and team work.

Teaching Methods:

Duration: 30 weeks in 1st and 2nd semesters (3rd year), 60 hours in total

Practical sessions: 60 hours, one 2-hour session per week (including one hour final practical exam).

Requirements:

Each student should bring:
Examination set

Amalgam set
Calcium Hydroxide applicator
A variety of High speed and low speed cutting burs and composite finishing burs.
Maxillary and Mandibular jaws
Acrylic and natural teeth.

▪ **Course Contents**

- 1 Introduction to dental unit**
- 2 Manual dexterity exercise**
- 3 Follow the fissure exercise**
- 4 Class I cavity preparation for amalgam filling (LM)**
- 5 Class I cavity preparation and evaluation for amalgam filling (LM)**
- 6 Class I cavity preparation for amalgam filling (UM)**
- 7 Class I cavity preparation for amalgam filling and evaluation (UM)**
- 8 Class I cavity preparation (PM, lower and upper with buccal and lingual extensions)**
- 9 Class II cavity preparation for amalgam filling (LM)**
- 10 Class II cavity preparation for amalgam filling and evaluation (LM)**
- 11 Class II cavity preparation for amalgam filling (UM)**
- 12 Class II cavity preparation for amalgam filling and evaluation (UM)**
- 13 Class I amalgam restoration (M)**
- 14 Class I amalgam restoration (M)**
- 15 Evaluation for class I amalgam restoration for UM&LM**

- 16 **Class II amalgam restoration (LM)**

- 17 **Class II amalgam restoration (UM)**

- 18 **Class II amalgam filling evaluation (U+LM)**
- 19 **Lining and base materials**

- 20 **Class III cavity preparation and evaluation**

- 21 **Class IV cavity preparation and evaluation**

- 22 **Class V cavity preparation and evaluation**

- 23 **Glass ionomer restoration**
- 24 **Anterior composite restoration**

- 25 **Anterior composite restoration**

- 26 **Evaluation for anterior composite restoration**

- 27 **Cavity preparation for posterior composite restoration and filling**
- 28 **Evaluation for Cavity preparation for posterior composite restoration and filling**

- 29 **Free Exercise**
- 30 **Final Exam**

▪ Evaluation system:

Course work (requirements): 60% of the final mark.

Final exam: 40% of the final mark.

▪ Attendance:

Students are allowed 15% absence according to the laws of the university

References and reading materials:

- Pickard's Manual of Operative Dentistry, Kidd E A M, Smith B G N and Pickard H M, 6th edition, Oxford Medical Publications.
- The Art and Science of Operative Dentistry, Sturdevant C M, Barton R E, Sockwell C L, Strickland W D. The C.V. Mosby Co. St. Louis.
- Restorative Dentistry, An integrated approach, Jacobsen P H, 1st edition, Wright publications.

