

1	Course title	Conservative Dentistry Practical (1)
2	Course number	1302316
3	<ul style="list-style-type: none"> Credit hours (theory, practical) 	Two credit hours (practical)
	<ul style="list-style-type: none"> Contact hours (theory, practical) 	Two hours/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	Department of Conservative Dentistry
10	Level of course	Bachelor
11	Year of study and semester (s)	Third year, First and second semesters
12	Final Qualification	DDS
13	Other department (s) involved in teaching the course	Non
14	Language of Instruction	English
15	Date of production/revision	8/ September/ 2019

16. Course Coordinator:

Name: Dr. Alaa Sabrah, BDS, MSD, PhD Operative Dentistry.

Office Number: Rehabilitation science building, room 520

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17. Other instructors:

<i>Name</i>	<i>Office number</i>	<i>Office hours</i>	<i>email</i>
<i>Dr. Ayah Al-Asmar</i>	<i>Faculty of Dentistry, r216</i>	<i>Sunday 9-1 pm Tuesday 9-1pm</i>	Dr.ayahalasmr@yahoo.com
<i>Dr. Alaa Sabrah</i>	<i>Faculty of Dentistry, r216</i>	<i>Monday 9-12 pm</i>	Sabralolo@yahoo.com

18. Course Description:

Operative Dentistry can be considered the backbone of the dental profession because most of the specialty areas rely heavily on the restorative or operative dentist. Operative Dentistry is the branch of dentistry dedicated to the restoration of the single tooth to proper shape and function. It includes diagnosis, prevention, as well as treatment phases for teeth in order to provide function, esthetics, health and comfort to the patient,

The objective of Conservative Dentistry Practical (1) course is to develop the required skills necessary to replace lost tooth structure through dental caries, traumatic injury, or physiologic, functional or chemical wear to proper form and function. This includes learning the principles of cavity preparation, the proper manipulation of various dental materials and the instruments used in the restoration process. Upon successful completion of this laboratory course, the dental student will be equipped to perform procedures of a similar nature on patients in the faculty of dentistry clinics with guidance provided by qualified instructors.

19. Course aims and outcomes:

• Aims:

- A- To learn the basic component of dental unit.
- B- To learn the different instruments used in operative dentistry and their uses.
- C- To learn the principles of cavity preparation for Class I, II, III, IV, V, VI.
- D- To learn the appropriate restorative technique for cavity preparation using Amalgam, Composite, and glass ionomer cement.
- E- To learn the restorative technique for extensively carious teeth.
- F- To learn the appropriate techniques for isolating teeth.
- G- To know how to use the dental shade guides for color matching.

- **B– Intended Learning Outcomes (ILOs):** Upon successful completion of this course students will be able to ...

1. Students should gain practical skills of the concepts, principles and theories related to Operative Dentistry.
2. 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.
3. Students should be able to use their allocated unit and position themselves in the correct position throughout the simulated clinical exercises.
4. 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.
5. 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.
6. Students should be able to practice the indirect technique using the mouth mirror during cavity preparation and other restorative procedures.
7. Students should be able to apply the concepts of esthetic dentistry

A. Knowledge and Understanding:

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

B. Intellectual Skills:

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

C. Subject-Specific Skills:

17. 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.
18. Identify and explain the functions of instruments used in Operative Dentistry.

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
Introduction to laboratory unit	1	Dr. Alaa Dr. Ayah	3	Each student will be asked to set up his own unit and operate it. Video 1 https://youtu.be/HYXkXC_btoo	Manufacture instructions for Kavo and DCI units.
Manual dexterity, follow the fissure exercise	2	Dr. Alaa Dr. Ayah	5, 8	Each student will be asked to perform "follow the fissure" exercise on acrylic teeth, and show it to the instructor. Video 1 https://youtu.be/HYXkXC_btoo	----
Caries Identification	3	Dr. Alaa Dr. Ayah	4, 8, 11, 13, 15, 17	Each student will be asked to identify different carious lesions on natural teeth. Video 2 https://youtu.be/zo8lASkbrk	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Caries Identification	4	Dr. Alaa Dr. Ayah	4, 8, 11, 13, 15, 17	Each student will be asked to identify	Sturdevant's Art and Science of

				different carious lesions on natural teeth. Video 2 https://youtu.be/zo8lASkbrrk	Operative Dentistry, 6 th Edition
Instrument used in operative dentistry. Buccal pit exercise	5	Dr. Alaa Dr. Ayah	2, 18, 10	Students will be asked to identify the different instruments in their purchase list. Each student will be asked to do a buccal pit cavity on lower Molars	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Follow the fissure exercise upper teeth	6	Dr. Alaa Dr. Ayah	1, 2, 3, 5	Each student will be asked to perform "follow the fissure" exercise on acrylic teeth, and show it to the instructor video 3 https://youtu.be/Eg16_x7Pa3o	---
Evaluation of Buccal pit cavity preparation	7	Dr. Alaa Dr. Ayah	1, 4, 5, 8, 9	Each student will be asked to do a buccal pit cavity on	---

				lower Molars, and submitted for evaluation	
Class I cavity preparation/ L6. Quiz 1	8	Dr. Alaa Dr. Ayah	1, 4, 5, 8, 9	Each student will be asked to perform class I cavity on acrylic tooth, and show it to the instructor. video 3 https://youtu.be/Eg16_x7Pa3o	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Class I cavity preparation/ U6	9	Dr. Alaa Dr. Ayah	1, 4, 5, 6, 8, 9	Each student will be asked to perform class I cavity on acrylic tooth, and show it to the instructor. video 3 https://youtu.be/Eg16_x7Pa3o	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Evaluation of Class I cavity preparation	10	Dr. Alaa Dr. Ayah	1, 4, 5, 6, 8, 9	Each student will be asked to perform class I cavity on marked acrylic teeth (L6 and U6), and submit it for evaluation	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition

Class II cavity preparation/ L6	11	Dr. Alaa Dr. Ayah	1, 4, 5, 8, 9	Each student will be asked to perform class II cavity on acrylic tooth, and show it to the instructor. Video 4 https://youtu.be/H3IuF-j0iU	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Class II cavity preparation/ U6	12	Dr. Alaa Dr. Ayah	1, 4, 5, 6, 8, 9	Each student will be asked to perform class II cavity on acrylic tooth, and show it to the instructor. Video 5 https://youtu.be/sfjsgbzAIo https://youtu.be/wB_uLLT4XA	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Evaluation of Class II cavity preparation	13	Dr. Alaa Dr. Ayah	1, 4, 5, 6, 8, 9	Each student will be asked to perform class II cavity on marked acrylic tooth, and submit it for evaluation.	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Class III	14	Dr. Alaa	1, 2, 4, 5, 7, 8, 9, 10,	Each student	Sturdevant's

		Dr. Ayah	12, 13, 14, 16, 21	will be asked to perform class III cavity on natural anterior tooth. Video 6 https://youtu.be/vqchzrWU-NU	Art and Science of Operative Dentistry, 6 th Edition
Class IV and V	15	Dr. Alaa Dr. Ayah	1, 2, 4, 5, 7, 8, 9, 10, 12, 13, 14, 16, 21	Each student will be asked to perform class IV and V cavities on natural anterior teeth. Video 7 https://youtu.be/2aljA9hr1g	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Posterior composite (class I, II)	16	Dr. Alaa Dr. Ayah	1, 4, 7, 8, 9, 10, 12, 13, 14, 16, 19, 21	Each student will be asked to perform class I cavity for composite on natural tooth. Video 8 https://youtu.be/miTPVywkqAY	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Evaluation of class V and class III cavity preparation	17	Dr. Alaa Dr. Ayah	1, 2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21	Each student will be asked to prepare a class III and V cavities on natural anterior teeth.	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Multiple isolation RD	18	Dr. Alaa Dr. Ayah	2, 5, 10, 18,	Each student will perform multiple	Sturdevant's Art and Science of

				isolation for posterior teeth. Video 9–12 https://youtu.be/u9-W82ejUV0 https://youtu.be/hGxu65TmVlk https://youtu.be/7BNle5YsioY https://youtu.be/w-VesKyomOU	Operative Dentistry, 6 th Edition
Matrices	19	Dr. Alaa Dr. Ayah	1, 2, 4, 5, 6, 8, 10, 11, 13, 14, 15, 19, 20,	Each student will be asked to place matrices for the different types of cavity preparation.	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Placement of amalgam restorations	20	Dr. Alaa Dr. Ayah	1, 2, 4, 5, 6, 8, 10, 13, 14, 19,	Each student will be asked to place Amalgam in class I and class II cavity preparation. Video 13 https://youtu.be/urQMEtfZxIE	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Placement of amalgam restorations	21	Dr. Alaa Dr. Ayah	1, 2, 4, 5, 6, 8, 10, 13, 14, 19,	Each student will be asked to place Amalgam in class I and class II cavity preparation.	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Evaluation on class I and class II amalgam	22	Dr. Alaa Dr. Ayah	1, 2, 4, 5, 6, 8, 10, 13, 14, 19	Each student will be asked to restore class I and II cavities with amalgam, and	Sturdevant's Art and Science of Operative

				submit it for evaluation	Dentistry, 6 th Edition
Bonding and placement of composite	23	Dr. Alaa Dr. Ayah	1, 2, 4, 5, 7, 8, 9, 10, 12, 13, 14, 16, 18, 19, 21, 22, 23	Each student will practice placing composite restorations in prepared cavities.	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Liners, bases, and Glass Ionomer cement restorations (GIC)	24	Dr. Alaa Dr. Ayah	1, 2, 4, 8, 9, 10, 11, 13, 14, 15, 19, 20, 22, 23,	Each student will be asked to apply a liner to prepared cavity. Each student will restore a prepared class V cavity with GIC restoration.	Fundamentals of Operative Dentistry: A Contemporary Approach. 3 rd Edition
Complex restorations and Pin retained restorations	25	Dr. Alaa Dr. Ayah	1, 4, 8, 9, 11, 13, 14, 15, 19, 20, 24	Each student will practice restoring a fractured tooth with complex Amalgam restoration. Each student will practice restoring a fractured tooth with pin retained Amalgam restoration. Video 14 –16	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition

				https://youtu.be/BR4HnhD5Y_w https://youtu.be/NNSkJUavsxw https://youtu.be/U3ZDV2Rs9YI	
Evaluation of Class II composite restoration. Quiz 2	26	Dr. Alaa Dr. Ayah	1, 2, 4, 5, 7, 8, 9, 10, 12, 13, 14, 16, 18, 19, 21, 22, 23	Each student will asked to place composite restorations in class II cavity, and submitted for evaluation.	Sturdevant's Art and Science of Operative Dentistry, 6 th Edition
Free exercise	27	Dr. Alaa Dr. Ayah	-----	-----	-----
Final examination	28	Dr. Alaa Dr. Ayah	-----	Each student will be asked to prepare MO cavity on upper 6, MOD cavity on lower 6, and place matrix band on prepared lower 6.	-----

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

1. **Presentations**
2. **Videos**
3. **Laboratory Demonstrations**
4. **Internet resources**
5. **Pictures and drawings**
6. **Dental models**

22. Evaluation Methods and Course Requirements:

- Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:
- **Completing instructor evaluation sheet after each lab.**
- **Performing the required tasks and submitting it for evaluation by instructors.**
- **Assignment projects: 60% of the final mark. 8 evaluations will be distributed on both semesters. Evaluation includes cavity preparation or tooth restoration.**
- **Final exam: 40points. Cavity preparation and restoration.**

23. Course Policies:

A- Attendance policies:

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

B- Absences from exams and handing in assignments on time:

The student will be allowed to set for a make-up exam (usually essay) if he/she did not attend the exam due to an acceptable excuse and the excuse was presented in due time as set in the UJ's regulations. If he/she did not attend an exam without an acceptable excuse the student's mark for that exam will be zero.

C- Health and safety procedures:

Each student is required to wear a lab coat, gloves, goggles, and mask during all laboratory work. Care should be taken during the use of handpieces. In case of injuries, students should inform their instructor about the injury, wash the site of injury under running water for at least 10 minutes, then use the appropriate bandages and medicaments present in the first aid box (located in the lab corner adjacent to the door). In case the injury needs a medical intervention, the instructor will be responsible for taking the injured students to the emergency clinic in the University of Jordan Hospital.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

Dishonesty of any kind with respect to examinations, course assignments, alteration of records, or illegal possessions of examinations will be considered as academic misconduct. It is the responsibility of the student not only to abstain from such behavior, but also to avoid the appearance of misbehavior and to guide against making it possible for others to misbehave. Students who collaborate in academic misconduct are as guilty as the student they assist. The student also should do everything possible to induce respect for the examination process and for honesty in the performance of assigned tasks in or out of class. Rules regarding this matter apply to all examinations and course work. Please refer for your Student Guide book for detailed regulations.

E- Grading policy:

All timed practical evaluation exercises must be completed during a timed laboratory period and submitted for grading, each exercise is given a mark out of 12. Percentage marks are converted to letters. (A)/(A-) are usually given for top 10-15% of students. Percentage mark < 50 does not mean a mark of Students can utilize UJ's medical or main library facilities. In addition, they can access e-journals and e-books within campus. They can access the Moodle e-learning through the UJ's wireless internet facilities for free or through the computer lab in the Faculty of Dentistry. A lot of other facilities and support can be provided through the Deanship of Student Affairs. (D-) or (F).

F- Available university services that support achievement in the course:

Students can utilize UJ's medical or main library facilities. In addition, they can access e-journals and e-books within campus. They can access the Moodle e-learning through the UJ's wireless internet facilities for free or through the computer lab in the Faculty of Dentistry. A lot of other facilities and support can be provided through the Deanship of Student Affairs.

24. Required equipment:

Each student should bring:

1. Examination set
2. Amalgam set
3. Calcium Hydroxide applicator
4. A variety of High speed and low speed cutting burs and composite finishing burs.
5. Maxillary and Mandibular jaws
6. Acrylic and natural teeth.

25. References:

A- Required book (s), assigned reading and audio-visuals:

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.

Fundamentals of Operative Dentistry: A Contemporary Approach, James B. Summitt, J. William Robbins, Thomas J. Hilton, Richard S. Schwartz, Jose Dos Santos Jr. Quintessence Pub Co.

B- Recommended books, materials, and media:

Pickard's Manual of Operative Dentistry, Kidd E A M, Smith B G N and Pickard H M, 6th edition, Oxford Medical Publications.

Restorative Dentistry, An integrated approach, Jacobsen P H, 1st edition, Wright publication

26. Additional information:

Concerns or complaints should be expressed in the first instance to the course instructor. If no resolution is forthcoming then the issue should be brought to the attention of the Department Chair and if still unresolved to the Dean. Questions about the material covered in the lectures, notes on the content of the course, its teaching and assessment methods can be also sent by e-mail.

Name of Course Coordinator: Alaa Sabrah Signature: Alaa Sabrah- Date: Sep, 8th , 2018

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

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

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

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