

1	Course title	Conservative Dentistry 5 – Theory
2	Course number	1302513
3	Credit hours (theory, practical)	2 hr (theory)
	Contact hours (theory, practical)	1 hr/week
4	Prerequisites/corequisites	Conservative Dentistry 1, 2, 3, 4
5	Program title	Doctor of Dental Surgery (DDS)
6	Program code	NA
7	Awarding institution	The University of Jordan
8	Faculty	Dentistry
9	Department	Restorative Dentistry
10	Level of course	Bachelor
11	Year of study and semester (s)	1st and 2nd semester 2022/2023
12	Final Qualification	DDS
13	Other department (s) involved in teaching the course	N/A
14	Language of Instruction	English
15	Date of production/revision	September 2022

#### 16. Course Coordinator:

Office numbers, office hours, phone numbers, and email addresses should be listed.

*Coordinator: Dr Ahmad Maaita*

*Office Hours: Mon. 12-2*

*Phone Number: 0795642613, 06 5355000 Ext 23552*

*Email: [ahmadmaaita@yahoo.com](mailto:ahmadmaaita@yahoo.com)*

#### 17. Other instructors:

*Office numbers, office hours, phone numbers, and email addresses should be listed.*

**Dr Susan Hattar**, office hours: Mon.12-2, Ext 23552, Email:[s.hattar@ju.edu.jo](mailto:s.hattar@ju.edu.jo)

**Prof Fouad Kathem**, office hours: Sun.11-12, Tue: 12-1, Ext 23552, E-mail:[fouadk@ju.edu.jo](mailto:fouadk@ju.edu.jo)

**Dr Ibrahim Abu-Tahun**, office hours:..... Ext 23552,E-mail: [i.abutahoun@ju.edu.jo](mailto:i.abutahoun@ju.edu.jo)

**Dr Aya Al-Asmar**, office hours:..... Ext 23552, E-mail: [ayah.ahmed@ju.edu.jo](mailto:ayah.ahmed@ju.edu.jo)

**Dr Haddad**, E-mail: [a.haddad@ju.edu.jo](mailto:a.haddad@ju.edu.jo)

**Dr Leena Smadi**, E-mail: [alsomadi@yahoo.com](mailto:alsomadi@yahoo.com)

**Dr.Rawan Abu Zaghlan**, email: [r.abuzhaghlan@ju.edu.jo](mailto:r.abuzhaghlan@ju.edu.jo)

**Dr.Sari Mahasneh**. Email: [s.mahasneh@ju.edu.jo](mailto:s.mahasneh@ju.edu.jo)

**Dr.Ahmad Maaita** [a.maaita@ju.edu.jo](mailto:a.maaita@ju.edu.jo)

**Dr.Sanaa Jamani** [s.aljamani@ju.edu.jo](mailto:s.aljamani@ju.edu.jo)

**Dr.Noor Ismail** [n.ismail@ju.edu.jo](mailto:n.ismail@ju.edu.jo)

## 18. Course Description:

*As stated in the approved study plan.*

This course discusses advances achieved in the field of conservative dentistry. It emphasizes the close relationship between conservative dentistry and other fields of dental sciences including Periodontic and oral surgery. The course pays special attention to occlusion, TMJ Dysfunction and its management, emergency treatment with emphasis on the role of Endodontics.

## 19. Course aims and outcomes:

### Aims:

To familiarize the students with the concept of **comprehensive case treatments** based upon a solid knowledge of different treatment option modalities. This course gives insight on new advances in restorative treatments.

To expose the students to advanced endodontics and surgical endodontic techniques. The clinical procedures are elaborated and fully discussed. This enables the students to make decisions regarding the retreatment of failed endodontic restorations.

In addition, another important aim of this course is to expose the student to an in-depth knowledge of the various temporomandibular disorders (TMDs), from the basic classification to the comprehensive management of these disorders.

A revision of the principal theories of occlusion as well as the concepts of conformational/ reorganized occlusion are discussed.

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

- 1) Outline the decisions that are necessary for treatment planning in fixed prosthodontics.
- 2) Identification of patients need and their preferences which are correlated to the range of treatments available. Ability to formulate a sequential treatment plan as part of ongoing comprehensive care.
- 3) Outline the esthetic considerations in fixed prosthodontics including analysis of smile components. The restorative procedures of manipulation light, color, illusion, shape & form to create proper esthetics.

Developing expertise in this area to differentiate the technically proficient dentist from the one practicing higher levels of dental care.

- 4) Confirming knowledge of different occlusal schemes used in fixed prosthodontics. Discussion of theories of occlusal rehabilitation, employed in daily practice whether conformational or re-organized, with full understanding of the indications and implications of each theme.
  - 5) Be familiar with the various procedural errors that could occur during root canal treatment. Understand how to prevent procedural errors and how to manage them should they occur.
  - 6) Define success and failure of root canal treatment. Recognize causes and factors contributing to success and failure of root canal treatment. Notice success rate and survival of root canal treated teeth.
  - 7) Recognize role of bacteria in the pathogenesis of pulpal and peri apical diseases. Obtain general knowledge of bacterial strains isolated from root canal infection (concept of biofilm).
  - 8) Be knowledgeable in the classification, diagnosis and treatment of the pulpal periodontal diseases. Understand the Inter-relationship between pulpal and periodontal tissues. Effect of the pulpal disease on the periodontium and vice versa.
  - 9) Gain General Knowledge of different temporomandibular disorders, regarding history, causes and clinical manifestation. Be able to give proper classifications of TMDs.
  - 10) Stepwise examination of different components of the stomatognathic system. Acknowledge the sequence of events resulting in TMDs.
  - 11) Have an idea about the general supportive & definitive therapy for TMD. Discuss treatment modalities used for muscular as well as articular disorders.
  - 12) Classification of different types of failures that might occur in fixed prosthodontics. Recognize the causes and possible solutions for these failures.
  - 13) To understand the different options of managing pulpal and peri radicular disease including extraction and replacement with implants. Have knowledge of the advantages and disadvantages of each option and the long term prognosis
- 
- 14) Understand the long term effect of restorative treatment on the periodontium. Define the periodontally compromised teeth. Gain knowledge of the concept & techniques of splinting as well as the indications and contraindication. Gingival prosthesis.
  - 15) Elaborate on the topic of cosmetic onlays: Indications/contraindication for the placement of onlays. Metallic vs cosmetic onlays. Be able to Compare between composite and ceramic onlays from all aspects of fabrication, cementation and properties.
  - 16) Recognize the etiological factors regarding tooth sensitivity. Have competency in the clinical management & different treatment modalities for tooth hypersensitivity
  - 17) Be familiar with latest technology and inventions in endodontics
  - 18) Knowledge of the different types of hand and rotary endodontic files. Recognize the metallurgy, geometry and designs of rotary files. Identify the indications for the use of manual and/or rotary

endodontics. Have a detailed information on the pros and cons of rotary endodontics. Finally, to have a sound knowledge of the ProTaper system as well as other rotary systems.

- 19) Outline the different types of resin bonded prosthesis, which require minimal amount of tooth structure preparation, thus preservation of caries free abutments. Shading further light on bonding technique for these prosthesis, fabrication by casting to allow precise and defined metal engagement of the abutment. All ceramic resin bonded prosthesis are also introduced.
- 20) Be able to understand the interplay of malocclusion and restorative procedures. To grasp the importance of occlusal analysis prior to restorative procedures. To elaborate on the management of the terminal tooth abutment and supraerupted.
- 21) To provide an updated scientific knowledge for different methods of cavity preparation techniques.
- 22) To introduce the students to the knowledge of combined restorative work (fixed–removable). In addition to concepts of advanced restorative work, such as Dahl concept and shortened dental arch.
- 23) To familiarize the students with the concept of different types of CAD–CAD. Introduce a new classification of all ceramic crowns by digital dentistry.
- 24) Identify and understand the indications and contraindications of endodontic surgery. Discuss the role of endodontic surgery in treatment planning for the patient. Recognize the medical or dental situations in which endodontic surgery is contraindicated.
- 25) Define the terms incision for drainage, apical curettage, root end resection and filling, root amputation, henisectiona and intentional replantation. Describe in brief the step by step procedures involved in periapical surgery. State the principles of flap design, list the more common root end filling material and review the basic principle of suturing.
- 26) The students should be able to understand and describe the advantages of thermal filling technique versus other obturation techniques. Describe the mechanical objectives needed for vertical technique. Understand the step by step procedures for the vertical technique.
- 27) State the cause for non healing after initial endodontic treatment. Discuss the issues that must be considered in retreatment case selection and communicate the risks and benefits to the patient. Describe the basic materials and techniques used for treatment.

## 20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
Diagnosis and treatment planning in F.P.	1,2	Prof Kadim	1, 2	22	A1
Occlusion in F.P.	3	Dr Hattar	4	22	B2, B3
Esthetic consideration in F.P.	4	Prof Kadim	3	22	A6, A7
Procedural errors in root canal preparation: causes, prevention and management	5	Dr Leena	5	22	A4

Surgical endodonticsI+II	6,7	Dr.Rawan	24, 25	22	A4, A5
Rotary Ni-Ti systems in Endodontics	8	Dr Sari	18	22	A4, A5
Success and failure in endodontics	9	Dr Abu Tahun	1. 6	22	A4, A5
Microbiology and the use of antibiotics in endodontics	10	Dr Abu Tahun	2. 7	22	A4, A5
Endo- perio lesions	11	Dr Abu Tahun	3. 8	22	A4, A5
Classification of TMJ disorders	12	Dr Noor	9	22	A9, A10
Conservative management of TMJ disorders	13,14	Dr Noor	10, 11	22	A9, A10
Cosmetic Inlays and Onlays	15	Dr Noo	15	22	A1, A2, B1
Resin bonded FBD	16,17	Prof Kadim	19	22	A1
Endodontic vs Implants	18	Dr.Maaita	13	22	A4
New advances in endodontics	19	Dr .Sanaa'	4. 17	22	A4
Management of failure in fixed prosthodontics	20	Dr Noor	12	22	A8
Thermal obturation techniques.	21	Dr Sari	26	22	A4, A5
Retreatment of Endodontic Failure.	22	Dr Sari	27	22	A4, A5
Endodontic assessment, treatment planning and referrals	23	Dr Sari	27	22	A4, A5
Dentinal Hypersensitivity	24	Dr.Sanaa'	16	22	A3
New methods of cavity preparation	25	Dr Al-Asmar	21	22	B5, B6
Integrated restorative work	26	Dr Haddad	22	22	B8 & B9
Effect of malocclusion on restorative dentistry I	27	Dr Haddad	20	22	A8, B4
Effect of malocclusion on restorative dentistry II	28	Dr Haddad	20	22	A8, B4

## 21. Teaching Methods and Assignments:

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

Lectures: 32 hours, one per week (including two 1-hour first and second exams).

## 22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Methods of evaluation:

First written exam 25%

Second written exam 25%

Final exam 50%: 40% written exam, 10% oral exam (viva voce)

## 23. Course Policies:

A- Attendance policies:

Lecture attendance is obligatory. The handout and recommended textbook are not comprehensive and additional material will be covered in lectures. Students are responsible for all material covered in lectures. However, 15% allowed absence is granted for students by the university law.

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

The students will be allowed to sit for a make up exam (the nature of which is decided by the course co-ordinator), in case they did not attend the designated exam due to a valid excuse, and the excuse was submitted in due time (according to the UJ regulations). In all other cases, absence from attending an exam the student mark will be considered zero.

C- Health and safety procedures:

No special recommendation

D- Honesty policy regarding cheating, plagiarism, misbehavior:

Cheating is considered an unacceptable behavior in exams and a reason for unsuccessful course result.

E- Grading policy:

Marks are converted to letter according to the course curve. Usually the top 10-15% students are granted the A mark. Marks D- and F are considered failure marks.

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

Students can utilize the university main library or medical library for references. In addition, they can access staff websites for additional information related to the course.

**24. Required equipment:**

N/A since the course is theoretical course

**25. References:**

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

- 1) **Contemporary Fixed Prosthodontics**; by Rosenstiel FS, Land MF, Fujimoto J. 4<sup>th</sup> Edition. St Louis: Mosby.
- 2) **Fundamentals of Fixed Prosthodontics**; by Shillingburg HT, Hobo S, Whitset LD.. Quintessence, Chicago
- 3) **Sturdevant's Art and Science of Operative Dentistry**; by Sturdevant, C. M., Barton, R. E., Sockwell, C. L., Strickland D. The C. V. Mosby Co. St. Louis.
- 4) **Cohen's Pathways of the pulp**; by Cohen, S., and Berman, R. C. 11<sup>th</sup> Edition 2015. Mosby Co. St.Louis.
- 5) **Endodontics: Principles and Practice**; by Walton, R.E, and Torabinejad, M. 5<sup>th</sup> Edition, 2014. W. B. Saunders Co Philadelphia.
- 6) **Contemporary Esthetic Dentistry**; by Freedman. 2012. Elsevier, Mosby.
- 7) **Esthetic Dentistry, Clinical Approach to Techniques & Material**; Aschheim K, Dale B. 2<sup>nd</sup> Edition. Mosby.
- 8) **Failure in the Restored Dentition: Management and Treatment**: M. Wise. Quintessence books.
- 9) **Management of Temporomandibular Disorders and Occlusion**. Okeson J, 6<sup>th</sup> Edition, 2008. Mosby
- 10) **A Clinical Guide to Temporomandibular Disorders**. Gray R, Davies S, Quayle A. BDJ books.

## B- Recommended books, materials, and media:

- 1) **Textbook of operative dentistry**; by Baum, L., Phillips, R. W., Lund, R. M. W. B. Saunders Co. Philadelphia.
- 2) **Good occlusal Practice in simple restorative dentistry**. Davies S, Gray R, Smith P. BDJ 2001; 191(7): 365
- 3) **Good occlusal Practice in advanced restorative dentistry**. Davies S, Gray R, Whitehead S. BDJ 2001;191(8): 421
- 4) **Occlusal changes following posterior tooth loss in adults. Part 1: a study of clinical parameters associated with the extent and type of supraeruption in unopposed posterior teeth**. Craddock et al., J Prostodont. 2007;16(6):485
- 5) **Dental caries: the disease and its clinical management**. Fejerskov O, Kidd E. 2<sup>nd</sup> Edition, 2009. Blackwell.
- 6) **Pickards guide to minimal invasive operative dentistry**. Banerjee A, Watson T. 9<sup>th</sup> Edition 2011. Oxford University Press.
- 7) **Cad/Cam systems available for the fabrication of crown and bridge restorations**. Australian Dental journal. 2011;56(1):97-106
- 8) **Prosthodontics: achieving quality aesthetic dentistry and integrated comprehensive care**. Journal of American dental Association. 2000;131(12):1742-9.
- 9) **The Dahl concept: past, present and future**. British dental Journal. 2005;198(11):669-76.

**26. Additional information:**

Name of Course Coordinator: -Dr Ahmad Maaita -Signature: ----- Date: -----

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

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

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

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

Copy to:

Head of Department  
Assistant Dean for Quality Assurance  
Course File