



Jordan University of Science and Technology
Faculty of Dentistry
Dental Surgery Department

DENT342 Dental Materials II - JNQF Level: 6
Second Semester 2022-2023

Course Catalog
1 Credit Hours. This course is a solely theoretical course with no practical component. It is the second dental materials course that will run over the course of the second semester. The theory part of the course will be presented to students in the form of weekly 1-hour lecture that provide students of basic and advanced knowledge of dental materials composition, properties, manipulation and clinical handling. Such knowledge will be applied firstly in preclinical laboratories, and then as part of the dental services within the dental clinics. This knowledge will also be instrumental in educating patients in the home maintenance of restorations and prostheses.

Text Book	
Title	Dental Materials, foundations and applications
Author(s)	Powers & Wataha
Edition	11th Edition
Short Name	DM applications
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
ADM	Applied Dental Materials	J.F. McCabe	9th Edition	http://mdayangon.org/admin_panel/upload/ebook/Applied%20Dental%20Materials9.pdf
Clin.Aspects	Clinical aspects of dental materials	Stewart and Bagby	5th Edition	

Instructor	
Name	Dr. Hanan Alzraikat
Office Location	-
Office Hours	
Email	hjsa@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Mon : 19:00 - 20:00 Room: U

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction to the course and discussion of the syllabus	
Week 2	Dental cements, varnishes, liners and bases	Chapter 7 From DM applications
Week 3	Endodontic materials, irrigants, sealants ad obturation materials	Chapter 31 From ADM
Week 4	Whitening systems and materials	Chapter 17 From Clin.Aspects
Week 5	Metals and alloys part I	Chapter 11 From DM applications
Week 6	Metals and alloys part II	Chapter 11 From DM applications
Week 7	Dental ceramics part I	Chapter 11 From ADM
Week 8	Dental ceramics part II	Chapter 11 From ADM
Week 9	Dental implants	Chapter 15 From DM applications
Week 10	Investment materials and their applications	Chapter 5 From ADM
Week 11	Preventive dental materials	Chapter 3 From DM applications
Week 12	Auxiliary and provisional restorative materials	Chapter 6 From DM applications, Chapter 26 From ADM
Week 13	Revision	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identify different classes of dental materials and their classification. [41.4 Scientific Knowledge and Cognitive Skills] [1L6K1]	4%	Midterm, Final
List the main components and uses of dental materials. [391.4 Scientific Knowledge and Cognitive Skills] [1L6K1]	39%	Midterm, Final
Describe the properties and appropriate methods used to manipulate dental materials in clinics and laboratories. [391.4 Scientific Knowledge and Cognitive Skills] [1L6K1]	39%	Midterm, Final
Recognize principles of prevention of dental caries and dental trauma by selecting appropriate dental material. [51.7 Scientific Knowledge and Cognitive Skills] [1L6K1]	5%	Midterm, Final
Define problems associated with the manipulation and application of dental materials in clinics and laboratories. [54.3 Critical Thinking, Problem Solving and Evidence-Based Practice] [1L6C3]	5%	Midterm, Final
Demonstrate abilities to use acquired knowledge to solve problems and prevent misuse. [54.3 Critical Thinking, Problem Solving and Evidence-Based Practice] [1L6C3]	5%	Midterm, Final
Cope with advancement in dental materials and their applications to improve dental services [36.2 Sustained Dental Practice and Lifelong Learning] [1L6C4]	3%	Midterm, Final

Relationship to Program Student Outcomes (Out of 100%)													
1.1 Scientific Knowledge and Cognitive Skills	1.2 Scientific Knowledge and Cognitive Skills	1.3 Scientific Knowledge and Cognitive Skills	1.4 Scientific Knowledge and Cognitive Skills	1.5 Scientific Knowledge and Cognitive Skills	1.6 Scientific Knowledge and Cognitive Skills	1.7 Scientific Knowledge and Cognitive Skills	2.1 Person-Centred Care	2.2 Person-Centred Care	2.3 Person-Centred Care	2.4 Person-Centred Care	3.1 Responsibility, Communication, Professionalism and Ethics	3.2 Responsibility, Communication, Professionalism and Ethics	3.3 Responsibility, Communication, Professionalism and Ethics
			82			5							

Relationship to NQF Outcomes (Out of 100%)		
L6K1	L6C3	L6C4
87	10	3

Evaluation	
Assessment Tool	Weight
Midterm	50%
Final	50%

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