

## Faculty of Oral & Dental Medicine

### Applied Dental Biomaterials

#### Information :

**Course Code :** DBM 213

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Faculty of Oral & Dental Medicine

#### Instructor Information :

Title	Name	Office hours
Professor	Gihan Hafiz Wally Ahamd Atallah	2
Associate Professor	MOHAMED MAHMOUD ABDEL FATAH AMMAR	3
Associate Professor	MOHAMED MAHMOUD ABDEL FATAH AMMAR	3
Teaching Assistant	Ahmed Mohamed Abdelaleem Mohamed elsaid Shhatah	
Teaching Assistant	Lojain Ali Mohamed Fazzaa	
Teaching Assistant	Mera Mohamed Hassan Emam	
Teaching Assistant	Lojain Ali Mohamed Fazzaa	
Teaching Assistant	Ahmed Mohamed Abdelaleem Mohamed elsaid Shhatah	

#### Area Of Study :

- “To present the applied aspects of dental materials as they are related to clinical manipulation by the dentist.
- “To bridge the gap between the knowledge obtained in the basic course in materials science, chemistry, and physics and the dental operatory.
- “To analyze the benefits and limitations of dental materials.
- “To make rational decisions on the selection of dental materials and use in a clinical practice.

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#### Course outcomes :

##### **a. Knowledge and Understanding: :**

1 -	Describe / discuss strengthening or improving or modifying procedures of applied dental materials and properties of newly introduced/modified materials.
2 -	List technical considerations, possible errors and defects.
3 -	Understand the properties, chemistry of setting reactions, compositions and microstructures.
4 -	Recognize the different applied dental materials preparation or processing procedures.
5 -	Identify the different applied dental materials types and classifications.
6 -	Recognize the ideal requirements of the different dental materials according to their clinical applications.

**b. Intellectual Skills: :**

1 -	Criticize prepared / processed applied dental materials.
2 -	Compare between the applied dental materials according to their properties and use
3 -	Relate composition and microstructure of the different applied dental materials to their properties and behaviors.

**c. Professional and Practical Skills: :**

1 -	Asses prepared / processed dental materials for possible defects.
2 -	Illustrate probably the manipulation steps of the different applied dental materials.
3 -	Recognize the appropriate material suitable for each clinical situation.
4 -	Identify the different dental materials and their mode of supply.

**d. General and Transferable Skills: :**

1 -	Demonstrate appropriate professional attitude and behavior in different situations.
2 -	Communicate effectively with colleagues, staff members for information gathering.

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
1. Dental Cements.			
2. Direct Esthetic Restorative Materials.			
3. Dental Amalgam.			
4. Dental Ceramics			
5. Wrought wires.			
6. Joining of metals.			

**Teaching And Learning Methodologies :**

Lectures
Small group sessions.
Demonstration
E-Learning
Self-learning
Problem based learning (PBL)

**Course Notes :**

yes
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**Recommended books :**

Restorative Dental materials edited by RG Craig.
Phillips' Science of Dental materials.

