

Faculty of Oral & Dental Medicine

Applied Dental Biomaterials

Information :

Course Code : DBM 212

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	Aiah Abdelwahab Elsayed Abdelfattah Elrashidy	2
Associate Professor	Aiah Abdelwahab Elsayed Abdelfattah Elrashidy	2
Associate Professor	MOHAMED MAHMOUD ABDELFATAH AMMAR	3
Teaching Assistant	Layla Mahmoud Mohamed Bakir Alamin	
Teaching Assistant	Mera Mohamed Hassan Emam	
Teaching Assistant	Ahmed Mohamed Abdelaleem Mohamed elsaid Shhatah	
Teaching Assistant	Layla Mahmoud Mohamed Bakir Alamin	
Teaching Assistant	Ahmed Mohamed Abdelaleem Mohamed elsaid Shhatah	
Teaching Assistant	Lojain Ali Mohamed Fazzaa	

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.

Description :

Impression materials, Model and Die Materials, Investment Materials, Casting technology , Dental Casting Alloys , None Metallic Denture Base.

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. Impression materials			
2. Model and Die Materials			
3. Investment Materials			
4. Casting technology			
5. Dental Casting Alloys.			
6. None Metallic Denture Base.			

Teaching And Learning Methodologies :

Lectures

Small group sessions.

Demonstration

E-Learning

Self-learning

Problem based learning (PBL)

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
5.1. Written examinations knowledge and understanding and intellectual skills.	25.00		
5.2. Oral examination	10.00		
5.3. Practical examination	15.00		
5.4. Mid-term Examinations	30.00		
5.5. Semester Work	20.00		

Course Notes :

yes

Recommended books :

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