

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
Associate Professor	MOHAMED MAHMOUD ABDEL FATAH AMMAR	3
Associate Professor	Aiah Abdelwahab Elsayed Abdelfattah Elrashidy	3
Lecturer	Heba Mahmoud Abdel Hamid Seif Eldin	1
Teaching Assistant	Ola Gamal Aly Abdelsalam Youniss	
Teaching Assistant	Dina Ahmed Mohamed Abdallah El Seftawy	
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.

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.