



COURSE PLAN

FIRST: BASIC INFORMATION

College

College : Irbid College
 Department : Medical Department

Course

Course Title : Dental Materials
 Course Code : **020813153**
 Credit Hours : 2 (2 Theoretical, 0 Practical)
 Prerequisite :

Instructor

Name :
 Office No. :
 Tel (Ext) :
 Email :
 Office Hours :

Building	Day	Start Time	End Time	Room No.

Text Book

Title : Dental Materials: Properties and Manipulation. 8th ed. St. Louis: Mosby,

References

1. Dental Materials: Properties and Manipulation. 8th ed. St. Louis: Mosby, 2004.
2. Gladwin, M. & Bagby, M., Clinical Aspects of Dental Materials: Theory, Practice, and Cases. 2nd ed. Philadelphia, PA: Lippincott, Williams & Wilkens, 2004.
3. Anusavice, Kenneth J., ed. Phillips' Science of Dental Materials. 11th ed. Philadelphia: W. B. Saunders, 2003.

SECOND: PROFESSIONAL INFORMATION

COURSE DESCRIPTION

This course covers the theory for the use of dental materials. It provides information on the physical properties of dental materials by classification and type.

COURSE OBJECTIVES

The objectives of this course are to enable the student to do the following:

- **Classify dental materials.**
- Explain the theory of dental materials.
- Explain the physical properties of dental materials.
- Explain how to use dental materials.

COURSE LEARNING OUTCOMES

By the end of the course, the students will be able to:

- CLO1. Classify dental materials
- CLO2. Explain the theory of dental materials
- CLO3. Explain how to use dental materials
- CLO4. Explain the characteristics of each type of dental material

COURSE SYLLABUS

Week	Unit	Content	Related LO and Reference (Chapter)	Proposed assignments
1	Dental Materials	<ul style="list-style-type: none"> • Introduction and definition of dental materials • Types of dental materials • Requirements for dental materials 	CLO1	
2	Mechanical Properties	<ul style="list-style-type: none"> • Definition of mechanical properties • Elements of mechanical properties 	CLO2	
3	Chemical Properties	<ul style="list-style-type: none"> • Resilience and viscosity of materials • Adhesion and cohesion of materials • Expansion and corrosion of materials 	CLO2	
4	Dental Impression Material	<ul style="list-style-type: none"> • Types of dental impression materials • Mechanical properties of dental impression agents • Requirements for dental impressions 	CLO3	
5	Dental Plaster and Stone	<ul style="list-style-type: none"> • Composition and types of dental models • Mechanical properties of dental models • Requirements for dental models 	CLO3	
6	Dental Wax	<ul style="list-style-type: none"> • Composition and types of dental wax • Mechanical properties of dental wax • Requirements for dental wax 	CLO3	
7	Dental metal	<ul style="list-style-type: none"> • Composition and types of dental metal • Mechanical properties of dental metal • Requirements for dental metal 	CLO3	
8	Mid-term Exam			
9	Alloy Properties	<ul style="list-style-type: none"> • Definition and classification of alloys • Composition and classification of alloys • Applications and uses of alloys 	CLO4	



Week	Unit	Content	Related LO and Reference (Chapter)	Proposed assignments
10	Alloy Heat Treatment	<ul style="list-style-type: none"> • Introduction to alloy heat treatment • Type of alloy heat treatment • Alloy heat treatment method 	CLO4	
11	Dental Ceramics	<ul style="list-style-type: none"> • Composition and types of dental ceramic • Mechanical properties of dental ceramic • Requirements for dental ceramic 	CLO3	
12	Ceramic Properties	<ul style="list-style-type: none"> • Thermal properties of ceramics • Mechanical properties of ceramics • Chemical properties of ceramics 	CLO4	
13	Dental Polymer	<ul style="list-style-type: none"> • Definition of dental polymers • Types of dental polymers • Requirements for dental polymers 	CLO3	
14	Polymer Properties	<ul style="list-style-type: none"> • Chemical structure of polymers • Classification of polymers • Mechanical and chemical properties of polymers 	CLO4	
15	Composite Materials	<ul style="list-style-type: none"> • Introduction of composite materials • Types of composite materials • Characteristics of composite materials 	CLO4	
16	Final Exam			

COURSE LEARNING RESOURCES

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ONLINE RESOURCES

www.journalse.elsevier www.sciencedirect.com www.womply.com

ASSESSMANT TOOLS

grading distribution table evaluation activity	
Homework	5
Report	5
Queses	10
mid term exam	20
Experience/Attendance/Participation	10
final exam	50



Total	100%
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THIRD: COURSE RULES**ATTENDANCE RULES**

Attendance and participation are extremely important, and the usual University rules will apply. Attendance will be recorded for each class. Absence of 10% will result in a first written warning. Absence of 15% of the course will result in a second warning. Absence of 20% or more will result in forfeiting the course and the student will not be permitted to attend the final examination. Should a student encounter any special circumstances (i.e. medical or personal), he/she is encouraged to discuss this with the instructor and written proof will be required to delete any absences from his/her attendance records.

GRADING SYSTEM**Example:**

Grade	Points
0-49	FAILED
50-100	PASSED

REMARKS

{The instructor can add any comments and directives such as the attendance policy and topics related to ethics }

COURSE COORDINATOR

Course Coordinator:
Signature:
Date:

Department Head:
Signature:
Date: