

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	Dental Material II
Course number	DENT2212
Faculty	
Department	
Course type	College Needs
Course level	2
Credit hours (theoretical)	2
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - Learn the basic since of dental material
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Intended Learning Outcomes

Knowledge and Understanding	* Upon completing this course , students will be able to : Know the basic of dental material
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Course Contents

1 - Impression material 1
2 - Impression material 2
3 - Dental casting alloy 1
4 - Dental casting alloy 2
5 - Amalgam
6 - Composite restorative material
7 - Dental ceramic 1
8 - Dental ceramic 2
9 - Investment material
10 - Dental stone
11 - Dental cements
12 - Dental cements
13 - Model and die
14 - Abrasion and polishing agent
15 - Dental wax

Teaching and Learning Methods

1 - ? Presentation by power points
2 - ? Lectures
3 - ? Assignment

Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
Midterm written exam	7th week	50
Final written exam	14th week	40
Final oral exam	14th week	10

Books and References

Recommended books	Basic dental materials	2013	John J manappallil	Jaypee Brothers
	Philipss since of dental materials	2014	Kenneth J.Anusavice	W.B. Saunders

Knowledge and Skills Matrix

Main Course Contents	Study Week	Knowledge and Understanding	Intellectual Skills	Professional Skills	General Skill
Definition ,Classification of impression materials,, Requirements,Clinical considerations, Impression plaster,Impression compound, Impression waxes, Zinc oxide/eugenol impression pastes	1st week	Impression material	Verifying different type of impression materials	Select proper type of impression materials for each case	Identify impression materials
Reversible hydrocolloids (agar), Irreversible hydrocolloids (alginates), Combined reversible/irreversible techniques, Modified alginates ,Polysulphides,Silicone rubbers	2nd week	Impression material	Verifying different type of impression materials	Select proper type of impression materials for each case	Identify impression materials
Terminology, Classification of dental casting alloys, Composition,Manipulation of base metal casting alloys, Properties, Comparison with casting gold alloys,	3rd week	Dental casting alloy	Verifying Dental casting alloy	Classification of dental casting alloys and manipulation	Identify Dental casting alloy
Biocompatibility,Evolution of metal-ceramic alloys,Requirements of alloys for porcelain bonding, Uses of metal-ceramic alloys The high noble (gold based) metal-ceramic alloys	4th week	Dental casting alloy	Verifying Dental casting alloy	Evolution of metal-ceramic alloys	Identify Dental casting alloy
Terminology ,Composition,Setting reactions,Properties, Clinical handling for dental amalgam,Manipulative variables,	5th week	Amalgam	Verifying types of amslgum and factor affect it	Manipulation of amalgum	Identifying amalgum
Composite materials ,Classification and composition an composites, Properties of composites,Fiber reinforcement of composite structures, Clinical handling of composites, Repair	6th week	Types of composite	Verifying of different type of composite	Manipulation of composite	Identifying composite
Uses and applications,Classification of dental porcelain, Composition of traditional dental porcelain,Manipulation , Compaction and firing,Properties of porcelain,	7th week	Dental ceramic	Verifying and classification of dental ceramic	Where to used dental ceramic	Identifying Dental ceramic

Properties of porcelain, Classification and description of ceramic systems, Alumina inserts and aluminous porcelain, Sintered alumina core ceramics, Injection moulded and pressed ,	8th week	Dental ceramic	Verifying dental ceramic	Classification and description of dental ceramic	Identifying dental ceramic
Investment material	9th week	Investment material	Verifying different type of investment materials	Determined which type should be used	Identifying Investment material
Dental stone	10th week	Types of Dental stone	Verifying different type of dental stone	Differentiate types of dental stone	Identify dental stone
Zinc phosphate cements, Silicophosphate cements, Copper cements, Zinc oxide/eugenol cements, Ortho-ethoxybenzoic acid (EBA) cements, Calcium hydroxide cements,	11th week	Dental cements	Verifying type of dental cement	Manipulation of dental cement	Identify dental cement
Definition ,Requirements & Desirable qualities, Available materials, Properties of gypsum products, Manipulation and setting characteristics, Factors affecting the setting time	12th week	Model and die	Properties of gypsum products, Manipulation and setting characteristics,	Determined which type should be used	Identify model and die
Types of Abrasion and polishing agent	13th week	Abrasion and polishing agent	Verifying Abrasion and polishing agent	Select proper Abrasion and polishing agent for each material	Identifying Abrasion and polishing agent
Requirements of wax pattern materials, Composition of waxes, Properties of dental waxes, Applications,	14th week	Types of Dental wax	Verifying different type of dental wax	Manipulation of dental wax	Identifying of dental wax properties and uses