



Course Specifications

Institution:	College of dentistry ,Al Zulfi
Academic Department :	Restorative Dental Science (223 RDS)
Programme :	BACHELOR of DENTAL SURGERY (BDS)
Course :	Dental Biomaterials Science
Course Coordinator :	Prof. Dr. Mohamed Shokry Ali
Programme Coordinator :	Abdulrahman Al Atram
Course Specification Approved Date :	21/ 12 / 1435 H



A. Course Identification and General Information

1 - Course title : Dental Biomaterials Science	Course Code: 223 RDS	
2. Credit hours : 3 hours		
3 - Program(s) in which the course is offered: Second year		
4 – Course Language : English		
5 - Name of faculty member responsible for the course: Prof.Dr. Mohamed Shokry ALI		
6 - Level/year at which this course is offered : Second year 1st&2nd Semester		
7 - Pre-requisites for this course (if any) : 132 RDS		
8 - Co-requisites for this course (if any) : None		
9 - Location if not on main campus : Al Zulfi		
10 - Mode of Instruction (mark all that apply)		
A - Traditional classroom <input type="checkbox"/>	What percentage? <table border="1"><tr><td>...100.... %</td></tr></table>	...100.... %
...100.... %		
B - Blended (traditional and online) <input type="checkbox"/>	What percentage? <table border="1"><tr><td>..... %</td></tr></table> %
..... %		
D - e-learning <input type="checkbox"/>	What percentage? <table border="1"><tr><td>..... %</td></tr></table> %
..... %		
E - Correspondence <input type="checkbox"/>	What percentage? <table border="1"><tr><td>..... %</td></tr></table> %
..... %		
F - Other <input type="checkbox"/>	What percentage? <table border="1"><tr><td>..... %</td></tr></table> %
..... %		
Comments :		

B Objectives

<p>What is the main purpose for this course?</p> <ol style="list-style-type: none"> Demonstrate the knowledge of properties, handling characteristics, advantages and disadvantages of dental materials covered in this course. <ul style="list-style-type: none"> Briefly describe any plans for developing and improving the course that are being implemented Increased use of audiovisual aids like models, video, power point presentation and pictures. <p>Use book site and student resources: useful video, websites, post test questions, quick answer questions.</p>



C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
Direct restorative material- Amalgam	1	1
Manipulation of dental amalgam	1	1
Direct filling gold	1	1
Manipulation of direct filling gold	1	1
Restorative resins (composites)	1	1
Composition of restorative resins	1	1
Holidays	2	
Clinical properties and application of restorative resins	1	1
Dental cements: Introduction to dental cements	1	1
Mid Term exam	1	
Types of dental cements	1	1
Introduction to Gypsum products	1	1
Types of gypsum products	1	1
Preventive and intermediary materials	1	1
Introduction to adhesion in dentistry	1	1
Dentine bonding	1	1

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	14					14
Credit	14					14



3. Additional private study/learning hours expected for students per week.

7

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Demonstrate the knowledge of direct restorative materials and indirect restorations and their indications.	Text books, discussions, audio visual presentations.	Written Exams, oral exams, quizzes
1.2	Select, manipulate and evaluate dental materials based on scientific understanding of their structure and properties.	Text books, discussions, audio visual presentations.	Written Exams, oral exams, quizzes
1.3	Recognize the limitations and reported clinical failures of dental materials and potential modifications to improve their properties.	Text books, discussions, audio visual presentations.	Written Exams, oral exams, quizzes
1.4	Demonstrate the knowledge of properties, handling characteristics, advantages and disadvantages of dental materials covered in this course.	Text books, discussions, audio visual presentations.	Written Exams, oral exams, quizzes



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.5	Differentiate between different types of impression materials.	Text books, discussions, audio visual presentations.	Written Exams, oral exams, quizzes
1.6	To explain indirect restorations and the technique and material used in casting procedures.	Text books, discussions, audio visual presentations.	Written Exams, oral exams, quizzes
2.0	Cognitive Skills		
2.1	To perform in-depth study and analysis of dental materials.	Demonstrations, discussions, handouts, audio visual presentations.	Clinical Exams, oral exams
2.2	To find innovative or creative solutions based on economy, feasibility and safety.	Demonstrations, discussions, handouts, audio visual presentations.	Clinical Exams, oral exams
2.3	To evaluate alternative dental material to be used in a specific situation, with an understanding of the impact of the proposed solution.	Demonstrations, discussions, handouts, audio visual presentations.	Clinical Exams, oral exams



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
2.4	Able to manipulate dental materials.	Demonstrations, discussions, handouts, audio visual presentations.	Clinical Exams, oral exams
2.5	Able to use different equipments to manipulate dental materials.	Demonstrations, discussions, handouts, audio visual presentations.	Clinical Exams, oral exams
2.6	To demonstrate different types of techniques for manipulation of dental materials.	Demonstrations, discussions, handouts, audio visual presentations.	Clinical Exams, oral exams
3.0	Interpersonal Skills & Responsibility		
3.1	A co operative and open atmosphere is expected during all class meetings.	Group assignment task. The students will engage in working groups.	Assessments of assignments and projects that have elements of interpersonal skills.
3.2	Students are encouraged to work together.	Group assignment task. The students will engage in working groups.	Assessments of assignments and projects that have elements of interpersonal



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
3.3	Students are encouraged to study together.	Group assignment task. The students will engage in working groups.	skills. Assessments of assignments and projects that have elements of interpersonal skills.
3.4	The students will have the ability to work constructively in a group.	Group assignment task. The students will engage in working groups.	Assessments of assignments and projects that have elements of interpersonal skills.
3.5	Students should be responsible for their own learning that requires using means to find new information data, or techniques.	Group assignment task. The students will engage in working groups.	Assessments of assignments and projects that have elements of interpersonal skills.
3.6	A co operative and open atmosphere is expected during discussions.	Group assignment task. The students will engage in working groups.	Assessments of assignments and projects that have elements of interpersonal skills.
4.0	Communication, Information Technology, Numerical		
4.1	Students will have the ability to communicate in English orally.	Introduce courses in English. Courses in computer application and programming.	Assessment of communication skills the English courses and term papers.
4.2	Students will have the ability to communicate in	Introduce	Assessment of



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
	English in writing.	courses in English. Courses in computer application and programming.	communication skills the English courses and term papers.
4.3	Student will have sufficient knowledge in information technology.	Introduce courses in English. Courses in computer application and programming.	Assessment of communication skills the English courses and term papers.
4.4	Student will have sufficient knowledge to gather, interpret the data.	Introduce courses in English. Courses in computer application and programming.	Assessment of communication skills the English courses and term papers.
4.5	Student will have sufficient knowledge to communicate information and ideas.	Introduce courses in English. Courses in computer application and programming.	Assessment of communication skills the English courses and term papers.
4.6	Student will have sufficient knowledge to perform statistical calculations.	Introduce courses in English. Courses in computer application and programming.	Assessment of communication skills the English courses and term papers.
5.0	Psychomotor		
5.1	Not applicable		
5.2			
5.3			





	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
5.4			
5.5			
5.6			

5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	Midterm exam	10	40
2	Behavior and attitude	---	5
3	Research	6	4
4	Homework	8	4
5	Presentation	6	3
6	Quiz	8	4
7	Written	15	40





D. Student Academic Counseling and Support

Arrangements for availability of teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

E. Learning Resources

1. List Required Textbooks :

Phillips Science of Dental Materials- 11th edition
Kenneth J. Anusavice

2. List Essential References Materials :

Journal of prosthetic dentistry, journal of dental research, journal of american dental association.

3. List Recommended Textbooks and Reference Material :

Craig's Restorative Dental Materials. 13th edition. By Ronald L.Sakaguchi and John M. Powers.

Philips' Science of Dental Materials. By Kenneth J.Anusavice.

4. List Electronic Materials :

Electronic material on CD, Web sites.

5. Other learning material :

F. Facilities Required

1. Accommodation

Class rooms with black and white boards.
L.C.D. projectors





2. Computing resources Laptop
3. Other resources ---

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching: Questionnaires and student group interviews. Ask the students questions directly. Getting Feedback Online
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor : Asses the teacher's abilities and potentials by using evolutional tools which fulfil the reliable, unambiguous, measurable, achievable criteria's
3 Processes for Improvement of Teaching : Updating the recent trends in educational process, involving in research. By attending continuing education programmes, conferences etc.
4. Processes for Verifying Standards of Student Achievement By using evaluation tools .
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement : Prepare work sheet for review; refresh the previous knowledge and panel discussions.

Course Specification Approved
Department Official Meeting No (1) Date 16 / 11 / 1435 H

Course's Coordinator

Name :
Signature :
Date : 18/12 /1435 H

Department Head

Name :
Signature :
Date : 18/12 /1435 H

