Course Specifications

Course Title:	**Introduction to Operative Dentistry**
Course Code:	**RDS 122**
Program:	**Bachelor of dental surgery (BDS)**
Department:	**Restorative Dental Science (RDS)**
College:	**College of dental medicine, Al Zulfi**
Institution:	**Majmaah University**

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A. Course Identification

1. Credit hours: 2
2. Course type **a.** University [√] College [√] Department [√] Others [ ] **b.** Required [√] Elective [ ]
3. Level/year at which this course is offered: 1st Year – 2nd Semester
4. Pre-requisites for this course (if any)**:NA**
5. Co-requisites for this course (if any)**:RDS 111**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	60	70%
2	**Blended**		
3	**E-learning**		
4	**Correspondence**		
5	**Other**	25	30%

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	**Lecture**	15
2	**Laboratory/Studio**	45
3	**Tutorial**	
4	**Others** (specify)	
	Total	60
Other Learning Hours*		
1	**Study**	15
2	**Assignments**	5
3	**Library**	5
4	**Projects/Research Essays/Theses**	
5	**Others** (specify)	
	Total	25

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

It is a six-month course, given as a one hour lecture and two hours of lab session in the 2nd semester of 1st year BDS program.

This course comprises of knowledge of basic principles used in operative dentistry which includes knowledge of instrumentation and restorative materials used in operative dentistry.

Basic understanding of instruments and restorative materials provides ability to use it in clinical scenario with best possible manner

2. Course Main Objective

- The theoretical component is designed to give the first year students basic cognitive knowledge of the principles, terminology, instruments, materials and techniques utilized in the practice of Operative Dentistry.
- The practical component provides the student with the initial experience in the application of restorative procedures for managing the carious process on phantom heads.
- The student should perform a series of exercises utilizing current instrumentation, materials, and techniques

3. Course Learning Outcomes

	CLOs	Aligned-PLOs
1	**Knowledge:**	
K3.6.1	Recall the medical, dental and other concepts needed for the practice of dentistry.	K3
2	**Skill**	
S1.6	Summarize the basic facts and concepts needed for the investigations and diagnosis of dental problems.	S1
S6.2	Develop critical thinking and reasoning skills to formulate management plan of dental disorders.	S6
3	**Competences**	
C1.5	Demonstrate collaborative teamwork and leadership spirit with responsibility to maintain professional competency.	C1

C. Course Content

No	List of Topics	Contact Hours
1	**Introduction to operative dentistry** 1. Definition & scope 2. Indications 3. Classification of restorations 4. Current research trends Types of restorations .5	1
2	**Basics of Dental caries** 1. Role of diet 2. Plaque 3. Classification Minimizing caries .4	1
3	**Hand instruments used in Operative dentistry** 1. Classification 2. Parts of hand instruments 3. Types of shank angles 4. Types of cutting edges 5. Name & Uses 6. Formula	1
4	**Rotary instruments used in Operative dentistry** 1. Types 2. Speed ranges 3. Uses of hi and low speed hand pieces 4. Types of burs 5. Parts of bur Shank designs .6	1
5	**Sharpening & maintenance of instruments** 1. Hand piece cleaning 2. Lubrication 3. Proper place for lubrication 4. Eccentricity of bur 5. Checking water and air quality 6. Why & how to sharpen 7. Sharpening material 8. Rules of sharpening	1
6	**Steps of cavity preparation** 1. Outline form 2. Convenience form 3. Retention from 4. Resistence form 5. Cavity Toilet	1
7	**Contents of a prepared cavity** 1. Abbreviations used in cavity prep 2. Walls 3. Floors	1

	4. Line angles 5. Point angles	
8	**Amalgam restorations/ polishing & finishing** 1. Steps of restorations 2. Meaning and method of trituration 3. Instruments for condensation 4. Technique of Ag filling 5. Time of condensation 6. Difference between finishing and polishing 7. Advantage of finishing 8. Reasons ofr polishing 9. Tarnish 10. Time of polishing	2
9	**Dental Restoratives** 1. Difference between intra and extra-coronal restoration 2. Terminology 3. Definition of simple, compound and complex cavities 4. Direct & indirect restorations 5. Materials for restorations	1
10	**Material Properties relevant to Op Dentistry** 1. Stress 2. Strain 3. Hardness 4. Toughness 5. Strength 6. Creep 7. Flexibility 8. Rigidity	2
Total		15

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

KPI	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	Knowledge		
PIK3-2	Recall the medical, dental and other concepts needed for the practice of dentistry.	✓ Lecture ✓ Lab demonstrations	Written examination, Oral examination Quiz, practical examination
	Skills		
PIS1-1	Summarize the basic facts and concepts needed for the investigations and diagnosis of dental problems.	✓ Lecture ✓ Lab demonstration ✓ Group discussion	Written examination, Oral examination Quiz, practical examination
PIS6-1	Develop critical thinking and reasoning skills to formulate management plan of dental disorders.	✓ Lecture ✓ Lab demonstration ✓ Group discussion	Written examination, Oral examination Quiz, practical examination
	Competence		
PIC1-1	Demonstrate collaborative teamwork and leadership spirit with responsibility to maintain professional competency.	✓ Lab ✓ Group task	Supervision and Assessment of group task

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quiz	During the course	5%
2	Midyear Exam- Theory	Week 7	20%
3	Homework	During the course	5%
4	Behaviour and Attitude	During the course	5%
5	Weekly practical assessment	During the course	25%
6	Final Practical exam	week 14	20%
7	Final Theory Exam	week 16	20%
8			

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

The student shall avail the consultancy during the displayed office hours

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	**Sturdevant's Art and Science of Operative Dentistry 6th Edition BY Harold O Heymann**
Essential References Materials	**Phantom Head Laboratory Manual prepared by Department of Restorative Dental Sciences, College of Dentistry, Almajmaah Univeristy.**
Electronic Materials	-
Other Learning Materials	**Pickard's manual of operative dentistry, 9th edition BY G.Logan** **• Atlas of operative dentistry: preclinical and clinical procedures BY**

2. Facilities Required

Item	Resources
Accommodation Classrooms, laboratories, demonstration) rooms/labs, etc.)	In the Classroom, number of seats is 20 Equipped phantom labs
Technology Resources AV, data show, Smart Board, software, etc.))	Laptop Smart Board Internet connection
Other Resources Specify, e.g. if specific laboratory equipment) list) a is required, list requirements or attach	Practical demonstration Equipped dental units. Hand instruments for clinical sessions.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students	Course Evaluation Survey Quality of Exam Survey
	Faculty	CLO Mapping with teaching & assessment. Course Blueprinting Grade Analysis Psychometric Analysis
	Peers	Grade Verification
Extent of achievement of course learning outcomes	Faculty member / Quality assurance committee	Direct assessment outcome analysis Course report preparation
Quality of learning resources, etc	Students / Faculty	Academic advising survey Student experience survey

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	**Department Council**
Reference No.	**********
Date	**26/1/1441 H**