



Course Specifications

Institution:	College of Dental Medicine
Academic Department :	Restorative Dentistry
Programme :	BDS
Course :	Introduction to operative dentistry 122 RDS
Course Coordinator :	Dr Mousa Abu Fadaleh
Programme Coordinator :	Dr Abdulrahman Alatram
Course Specification Approved Date :	16/ 11 / 1435 H



A. Course Identification and General Information

1 - Course title :	Introduction to operative dentistry	Course Code:	122 RDS
2. Credit hours :	(2)		
3 - Program(s) in which the course is offered:	BDS		
4 – Course Language :	English		
5 - Name of faculty member responsible for the course:	Mousa Abu Fadaleh		
6 - Level/year at which this course is offered :	1st		
7 - Pre-requisites for this course (if any) :	<ul style="list-style-type: none"> • non 		
8 - Co-requisites for this course (if any) :	<ul style="list-style-type: none"> • 111 RDS 		
9 - Location if not on main campus :	(Zulfi)		
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	60 %
B - Blended (traditional and online)	<input checked="" type="checkbox"/>	What percentage?	10 %
D - e-learning	<input checked="" type="checkbox"/>	What percentage?	5 %
E - Correspondence	<input type="checkbox"/>	What percentage? %
F - Other (practical demonstration)	<input checked="" type="checkbox"/>	What percentage?	25 %
Comment: Using smart board, attractive Audio-visual Aids and practical demonstration			

B Objectives

What is the main purpose for this course?
 This preclinical one semester course includes a theoretical and practical component. 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 clinical exercises utilizing current instrumentation, materials, and techniques.

Briefly describe any plans for developing and improving the course that are being implemented:

- At this stage the student begins the real dental work, for that it is necessary increased use of audiovisual aids like models, video and pictures.
- Live demonstration on models & patients.



C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
Introduction to operative dentistry <ol style="list-style-type: none"> 1. Definition & scope 2. Indications 3. Classification of restorations 4. Current research trends 5. Types of restorations 	1	1
Basics of Dental caries <ol style="list-style-type: none"> 1. Role of diet 2. Plaque 3. Classification 4. Minimizing caries 	1	1
Hand instruments used in Operative dentistry <ol style="list-style-type: none"> 1. Classification 2. Parts of hand instruments 3. Types of shank angles 4. Types of cutting edges 5. Name & Uses 6. formula 	1	1
Rotary instruments used in Operative dentistry <ol style="list-style-type: none"> 1. Types 2. Speed ranges 3. Uses of hi and low speed hand pieces 4. Types of burs 5. Parts of bur 6. Shank designs 	1	1
Sharpening & maintenance of instruments <ol style="list-style-type: none"> 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	1
Steps of cavity preparation <ol style="list-style-type: none"> 1. Outline form 2. Convenience form 3. Retention form 4. Resistance form 5. Cavity Toilet 	1	1



Contents of a prepared cavity <ol style="list-style-type: none"> 1. Abbreviations used in cavity prep 2. Walls 3. Floors 4. Line angles 5. Point angles 	1	1
Amalgam restorations/ polishing & finishing <ol style="list-style-type: none"> 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	2
Dental Restoratives <ol style="list-style-type: none"> 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	1
Material Properties relevant to Op Dentistry <ol style="list-style-type: none"> 1. Stress 2. Strain 3. Hardness 4. Toughness 5. Strength 6. Creep 7. Flexibility 8. Rigidity 	1	1
Significance of Ergonomics in dentistry <ol style="list-style-type: none"> 1. Musculoskeletal disorders 2. Risk factors 3. Body strengthening exercises 4. Consequences of not sticking to ergonomics 	1	1



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

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	1	0	0	3	0	4
Credit	1	0	0	1	0	2

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

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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	<ul style="list-style-type: none"> Mention indications of operative dentistry procedures 	Lectures, textbook, articles, discussion, audiovisual, live demonstration & clinical exposure of the students	One best type MCQs exams, short assay exams & quizzes.
1.2	<ul style="list-style-type: none"> Define Caries and Dental Plaque 	Lectures, textbook, articles, discussion, audiovisual, live demonstration & clinical exposure of the students	One best type MCQs exams, short assay exams & quizzes.
1.3	<ul style="list-style-type: none"> Describe remineralization / demineralization of hard tooth tissue 	Lectures, textbook,	One best type MCQs exams,



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
		articles, discussion, audiovisual, live demonstration & clinical exposure of the students	short essay exams & quizzes.
1.4	Students will be able to name the main causative microorganism of caries and mention various terms used in describing caries	Lectures, textbook, articles, discussion, audiovisual, live demonstration & clinical exposure of the students	One best type MCQs exams, short essay exams & quizzes.
1.1	Students will be able to identify and define hand - instruments	Lectures, textbook, articles, discussion, audiovisual, live demonstration & clinical exposure of the students	One best type MCQs exams, short essay exams & quizzes.
1.2	Students will be able to name, identify and mention uses of restorative instruments	Lectures, textbook, articles, discussion, audiovisual, live demonstration & clinical exposure of the students	One best type MCQs exams, short essay exams & quizzes.
1.3	Students will be able to list advantage of using sharp instrument	Lectures, textbook, articles, discussion, audiovisual, live demonstration & clinical exposure of the students	One best type MCQs exams, short essay exams & quizzes.
1.4	Students will be able to list steps of tooth	Lectures,	One best type



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
	preparation and describe meaning of term “tooth preparation”	textbook, articles, discussion, audiovisual, live demonstration & clinical exposure of the students	MCQs exams, short assay exams & quizzes.
1.5	Students will be able to define a restoration and list steps of amalgam restoration	Lectures, textbook, articles, discussion, audiovisual, live demonstration & clinical exposure of the students	One best type MCQs exams, short assay exams & quizzes.
2.0	Cognitive Skills		
2.1	Assigned project work	Textbooks, websites, seminars & handouts.	Exams by written and oral quizzes, questioning, review test & performance notice.
2.2	Team presentation	Textbooks, websites, seminars & handouts.	Exams by written and oral quizzes, questioning, review test & performance notice.
2.3	Group participation	Textbooks, websites, seminars & handouts.	Exams by written and oral quizzes, questioning, review test & performance notice.
3.0	Interpersonal Skills & Responsibility		
3.1	A cooperative and open atmosphere is expected during all class meetings.	Eye to eye contacts and group works	Group discussions and assigned readings





	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
3.2	Students are encouraged to work together and to study together.	Eye to eye contacts, group works	Group discussions and assigned readings
3.3	No wireless devices (cell phones, pagers, PDAs), and no devices with ear plugs are allowed during exams, quizzes, or classes.	-	-
4.0	Communication, Information Technology, Numerical		
4.1	Oral (verbal) Questions	By using attractive Audiovisual Aids. Justifications and brief descriptions	Let them ventilate their feelings and exams
4.2	Communication with students through University Website	By using attractive Audiovisual Aids. Justifications and brief descriptions	-
5.0	Psychomotor		
5.1	Show Proper grasp of instrument and use each instrument for appropriate use	PowerPoint presentation, demonstrations on patients, individualized attention for correction of mistake & grading of the task.	Case presentation, practical evaluation, OSCE & Viva voce.
5.2	Mount burs on Hand piece and hold hand pieces properly for effective use		Case presentation, practical evaluation, OSCE & Viva voce.



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
5.3	<ul style="list-style-type: none"> • Sharpen instrument effectively • Lubricate instrument • Perform cleanliness of instruments 	PowerPoint presentation, demonstrations, individualized attention for correction of mistake & grading of the task.	Case presentation, practical evaluation, OSCE & Viva voce.
5.4	Triturate amalgam mechanically Fill the amalgam within 3-4 minutes after mixing	PowerPoint presentation, demonstrations, individualized attention for correction of mistake & grading of the task.	Case presentation, practical evaluation, OSCE & Viva voce.
5.5	Pack amalgam into the prepared cavity	PowerPoint presentation, demonstrations, individualized attention for correction of mistake & grading of the task.	Case presentation, practical evaluation, OSCE & Viva voce.
5.6	Carve and finish amalgam	PowerPoint presentation, demonstrations, individualized attention for correction of mistake & grading of the task.	Case presentation, practical evaluation, OSCE & Viva voce.





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

	Assessment task	Week Due	Proportion of Total Assessment
1	After completion of each prescribed project & seminar	During the semester	5 %
2	Midterm theory exam	7 th week	15 %
3	Midterm practical exam	7 th week	5 %
4	Practical assessment	During the semester	30 %
5	Professional assessment	During the semester	5 %
6	Final theory exam	End of the semester	30 %
7	Final practical exam	End of the semester	10 %

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):
- Students will be informed in advance to assemble themselves in the classroom for group discussions
- Students will be informed about the written tasks in the form of essays.
- Students will be encouraged towards use of internet sources and library for the study and completion of the assignments

E. Learning Resources

1. List Required Textbooks :

- **Sturdevant's Art and Science of Operative Dentistry 6th Edition BY Harold O Heymann**

2. List Essential References Materials :

- **Phantom Head Laboratory Manual prepared by Department of Restorative Dental Sciences, College of Dentistry, Almajmaah Univeristy.**

3. List Recommended Textbooks and Reference Material :

- **Pickard's manual of operative dentistry, 9th edition BY G.Logan**
- **Atlas of operative dentistry: preclinical and clinical procedures BY**



Joseph R Evans, John H Wetz, Roy A Wilko

4. List Electronic Materials :

- **Video for root canal treatment procedures and techniques**
- **Presentations**

5. Other learning material :

-

F. Facilities Required

1. Accommodation

- **In the Classroom, number of seats is 20**
- **Laptop and Data show,**
- **Smart Board**
- **Equipped phantom labs.**

2. Computing resources

- **Laptop**
- **Smart Board**
- **Internet connection.**

3. Other resources

- **Practical demonstration**
- **Equipped dental units.**
- **Hand instruments for clinical sessions.**

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

- **Using questioners as an evaluation tools**

2. Other Strategies for Evaluation of Teaching by the Program/Department Instructor :

- **Assess the teacher's abilities and potentials by observations and assistance from colleagues, independent assessment of standards achieved by students, independent advice on assignment tasks using evolutionary tools which are fulfil the reliable, unambiguous, measurable, achievable criteria's.**





3. Processes for Improvement of Teaching :

- **In service educational process means of updating the recent trends in educational process, involving in research**

4. Processes for Verifying Standards of Student Achievement

Describe methods used to compare standards of achievement with standards achieved elsewhere, e.g. check marking of a sample of examination papers or assignment tasks.

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 : Mousa Abu Fadaleh

Signature :

Date : 18/ 12 / 1435 H

Department Head

Name : Mousa Abu Fadaleh

Signature :

Date : 18/ 12 / 1435 H

