

Department of Operative Dentistry



**Study Guide
3rd Year BDS**

**College of Dentistry
Sharif Medical & Dental College,
Lahore**



PREFACE

Study guides can be broad based to facilitate learning in a number of areas, or be resources that foster comprehension of literature, research topics, history, and other subjects. It includes study and testing strategies; reading, writing, and project management skills; as well as techniques for learning as an adult, with disabilities, and online. It is like a teacher available 24 hours. It also includes the teaching methodology to be followed throughout the year.

At College of Dentistry, SMDC we follow the traditional annual academic schedule in which the subject of Operative Dentistry is taught in the second, third and final academic year of a dental school. Keeping in view the mission of UHS, Lahore and vision of our institute we have designed attaining program which is intensive and at the same time interesting for the young minds. This guide includes details about various teaching activities which are to take place throughout the academic year along with the time allocation of each. A list of lectures to be conducted in this session with names of the instructors is attached. Broad learning outcomes of every section of the course accompanied by specific learning objective of every lecture is also included. A complete list of clinical work to be carried out in the simulator laboratory and clinic is part of this document. Details of various assessments and testing methodology are included and marks distribution for the subject in the final Professional examinations has been given. Names and email contacts of faculty have also been mentioned to foster better interaction between the teacher and the taught.

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VISION & MISSION OF UHS

Qualitative and Quantitative Revolution in Medical Education and Research through Evolution and there by improve Health Care delivery to Populace.

UHS shall be innovative global center of excellence in learning and research, supporting a community of scholars and professionals committed to serving society, promoting the development of students to reach their true potential in becoming competent, ethical, caring, and inquiring health professionals for the benefit of the country and the wider world.

MISSION OF SMDC

Sharif Medical & Dental College is dedicated to best serve the nation through preservation and dissemination of advanced knowledge and educating the students by latest trends in learning and research reaching levels pars excellence.

The Institution is committed to provide standardized quality medical education to its students by inculcating professional knowledge, skills and responsibilities in them with the aim of:

- Preparing them as modern physicians having initiative to act as future leaders in their respective fields and becoming lifelong learners.
- Encouraging the spirit of critical thinking through research and publication.
- Building up an understanding of the ethical values compatible with our religion, culture and social norms.
- Developing a sense of being responsible citizens of the society possessing professional competence and instilling in them the values of hard work and dedication thus preparing them to be accountable to the stakeholders and the state.

The Institution is devoted to keep abreast its faculty with the latest trends in Medical Education encompassing teaching/learning methodologies, assessment tools, research opportunities and professionalism to facilitate their professional development, competencies and commitment towards continues learning.

Our patient-centered mission is achieved by outstanding medical care & services in professional practice with due emphasis and focus on our local health needs.

Our mission further elaborate upon establishing academic and research facilities in areas of local demand under global gold standards and leading advancement in research, education & patient care.

VISION OF SMDC

To be recognized for the provision of a safe and functional environment conducive to collaborative teaching & learning, comfortable working atmosphere, and conducting world class research through professionalism and excellence.



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PLANNED TEACHING ACTIVITIES

PMC has allocated 100 hours of teaching in the subject of Operative Dentistry for the BDS course. In order to meet this requirement following teaching modules have been planned. These modules have been carefully designed to impart core knowledge of Operative Dentistry in a manner that an undergraduate student can grasp the subject fully and is adequately prepared for university examinations.

Lectures:

A total of 32 lectures are planned for the entire year. The lectures will be conducted by the Assistant professors and senior lecturers with very good command in subject. The lectures will be interactive and students should actively participate in them to clear their doubts. The students are required to take notes of the lectures and study the topic with the help of prescribed text books in light of the learning objectives of the topic enunciated by the teacher at the beginning of each lecture.

Clinical Training:

This is six days a week program. Students have to visit each clinical department for two months in a year. This includes restorations and root canal treatment of patients under supervision. All faculty members and demonstrators are available all the time for guidance. Mostly students treat patients but side by side they are given chance to diagnose patients. Students are required to enter their work in their log books and get them checked by the instructors regularly.

TRAINING PROGRAM FOR LECTURES

GENERAL

1. Attendance is mandatory.
2. Monthly tests are taken at the end of each topic.
3. Every student must give a presentation on a given topic in class.
4. Regarding Students should come on time. Late comers will not be allowed to enter the class or clinic.
5. Clinical Procedures: Students should complete their assigned clinical cases/ procedures.
6. Tutorials: Group discussions on given topics will be held on regular basis
7. Students should follow the rules and regulations of the college.
8. The students are directed not to operate any equipment without supervision.
9. Students and instructors are instructed to wear protective eyewear or face shield during training.
10. Students are instructed to wear mask and gloves for their own protection.
11. The students, demonstrations and all staff members in clinic are given demonstrations on using fire extinguishers.
12. The students are directed to wear overalls throughout their time in the pre-clinical lab which should be clean.
13. Proper footwear should be observed and hair is to be tied before entering the pre-clinical lab.
14. Students should bring their own instruments.
15. Eating and drinking is prohibited in the pre-clinical lab and lecture hall.

OPERATIVE DENTISTRY

Sr. no.	Topics	Lecture
1	History and record keeping	Dr. Sadaf Khawaja
2	Instruments and their uses	Dr. Sadaf Khawaja
3	Sterilization and self-protection	Dr. Ali Akbar
4	Cariology 1	Dr. Ali Akbar
5	Cariology 2	Dr. Ali Akbar
6	Application of radiographs In Operative dentistry	Dr. Sadaf Khawaja
7	Isolation of operating field	Dr. Sadaf Khawaja
8	Minimum invasive dentistry	Dr. Ali Akbar
9	Temporary restorations	Dr. Sadaf Khawaja
10	Materials chemistry	Dr. Ali Akbar
11	Reasons of restoration of a tooth	Dr. Sadaf Khawaja
12	Pit and fissure sealants	Dr. Ali Akbar
13	Management of tooth discoloration	Dr. Sadaf Khawaja
14	Fundamentals of tooth preparation	Dr. Sadaf Khawaja
15	Class 1 amalgam restoration	Dr. Ali Akbar
16	Class 1 amalgam restoration	Dr. Ali Akbar
17	Class 2 amalgam restoration	Dr. Ali Akbar
18	Class 2 amalgam restoration	Dr. Ali Akbar

19	Class 3 & 5 amalgam restoration	Dr. Sadaf Khawaja
20	Class 1 tooth colored restoration	Dr. Ali Akbar
21	Class 2 tooth colored restoration	Dr. Ali Akbar
22	Class 3 tooth colored restoration	Dr. Ali Akbar
23	Class 4 tooth colored restoration	Dr. Ali Akbar
24	Class 5 tooth colored restoration	Dr. Sadaf Khawaja
25	Porcelain restorations (class 1 & 2 indirect tooth colored restoration)	Dr. Sadaf Khawaja
26	Cast metal restoration	Dr. Sadaf Khawaja
27	Porcelain restorations (class 1 & 2 indirect tooth colored restoration)	Dr. Sadaf Khawaja
28	Restorative techniques for cast metal restorations	Dr. Sadaf Khawaja
29	Direct gold restoration	Dr. Sadaf Khawaja
30	Direct gold restoration	Dr. Sadaf Khawaja
31	Dentin pins & posts for complex amalgam restorations	Dr. Ali Akbar
32	Dentin pins & posts for complex amalgam restorations	Dr. Ali Akbar

LIST OF LECTURES AND LEARNING OBJECTIVES

OPERATIVE DENTISTRY

This is pre-clinical subject. Knowledge of this subject help student identify patient's problem. So, emphasis should be laid on its knowledge. At the end of the course student must be able to identify caries, other dental problems and their management.

OPERATIVE DENTISTRY

Sr. no.	Title of lecture with learning objectives
1	Dental caries aetiology Should have through knowledge Describe Risk factors and assessment Should be able to describe treatment according to grades
2	Caries diagnosis, factors, prognosis Should have knowledge of caries Should be able to diagnose Describe use of modalities for diagnosis and progression
3	Caries treatment Should know medical mode of treatment Should know surgical mode of treatment
4	Fluorides in dentistry Should know the chemistry fluoride Describe development of fluorosis Should know treatment and prevention techniques
5	Amalgam alloys Should know Amalgam chemistry Should know handling technique Describe uses and waste management
6	Composite resins Should know composite resin chemistry Should know handling technique and uses
7	Glass ionomers/ calcium hydroxide Should know GIC chemistry Should know handling technique and uses
8	Zn. Phosphate/ Zn. Oxide eugenol/polycarboxylate Should know chemistry Should know handling technique and uses
9	Armamentarium Should be able to identify instruments Should have knowledge of all instruments Should know handling technique Describe instruments uses
10	Adhesives in dentistry Should know adhesives chemistry Should know bonding strategies Should be able to make all types of cavities

11	Extra / intra coronal restorations Should know chemistry of restorative materials Should know handling technique and uses Should know indications Describe placement of restorations
12	Aesthetic restorations & procedures Should know its chemistry, handling technique and uses Should be able to discuss with patient about his requirements, what improvement patient wants Modalities available for Aesthetic treatment
13	Gold restorations Should know gold chemistry describe handling technique and uses
14	Complex restorations Describe what are complex restorations Should be able to perform restorations Should be able to identify complex cases

LIST OF PRECLINICAL PROCEDURES

RESTORATION

Sr.no.	Clinical Procedure	Description
1	Class 1 Amalgam Restoration	<ul style="list-style-type: none"> • Tooth with class 1 carious defect • Cavity preparation with GV Black's laws • Restoration with Amalgam Alloy
2	Class 2 Amalgam Restoration	<ul style="list-style-type: none"> • Tooth with class 2 carious defect • Cavity preparation with GV Black's laws • Restoration with Amalgam Alloy
3	Class 1 Composite Restoration	<ul style="list-style-type: none"> • Tooth with class 1 carious defect • Minimal invasive Cavity preparation • Handling of composite resin • Restoration with composite resin
4	Class 2 Composite Restoration	<ul style="list-style-type: none"> • Tooth with class 2 carious defect • Minimal invasive Cavity preparation • Handling of composite resin • Restoration with composite resin
5	Class 3 Composite Restoration	<ul style="list-style-type: none"> • Tooth with class 2 carious defect • Minimal invasive Cavity preparation • Handling of composite resin • Restoration with composite resin
6	Class 4 Composite Restoration	<ul style="list-style-type: none"> • Tooth with class 2 carious defect • Minimal invasive Cavity preparation • Handling of composite resin • Restoration with composite resin
7	Class 5 Composite Restoration	<ul style="list-style-type: none"> • Tooth with class 2 carious defect • Minimal invasive Cavity preparation • Handling of composite resin • Restoration with composite resin



ASSESSMENT PLAN

Following modes of assessment are planned for Final professional BDS class in the subject of Operative Dentistry. This plan has been designed keeping in view the university curriculum and hopefully will facilitate the students in preparing for Final professional BDS examinations in the subject.

Chapter Tests:

These will be conducted at the completion of every chapter. The test will comprise of MCQs and SEQs on the pattern of university examinations. A preparatory time of at least 10 days shall be given prior to these tests.

Clinical Tests:

In order to prepare the students for practical examinations at least two clinical tests will be conducted on the pattern of university examinations.



STAFF CONTACTS

Sr. No.	Name	Email address
1	Dr. Muhammad Moazzam	muhammad.moazzam@sharifmedicalcity.org
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3	Dr. Ali Akbar	aliakbar6378@gmail.com
4	Dr. Sadaf Amjad	sadafamjadkhawaja@gmail.com



REFERENCE BOOKS

1. The Art & Science of Operative Dentistry by Sturdevant.
2. Pickards Manual of Operative Dentistry by EAM Kidd.
3. Fundamentals of Operative Dentistry by Schwartz.
4. Paediatric Dentistry Infancy through Adolescence by Pinkham.
5. Essentials of Dental Radiography & Radiology by Frickwhaites.