



**DEPARTMENT OF DENTAL EDUCATION  
STUDY GUIDE  
THIRD YEAR BDS PROGRAM  
MODULAR CURRICULUM  
BATCH-III  
2025-2026**

## ABBREVIATIONS

ASSIG/AS	Assignment
<b>BCQS</b>	<b>Best Choice Questions</b>
<b>CBL</b>	<b>Case-Based Learning</b>
<b>CDC</b>	<b>Curriculum Development Committee</b>
<b>CME</b>	<b>Continuous Medical Education</b>
<b>CP</b>	<b>Class Presentation</b>
<b>CQ</b>	<b>Class Quiz</b>
<b>CR</b>	<b>Clinical Rotation work in OPD</b>
<b>CS</b>	<b>Clinical Session</b>
<b>CW</b>	<b>Clinical work (OPD)</b>
<b>HEC</b>	<b>Higher Education Commission</b>
<b>HO</b>	<b>House Officers</b>
<b>HOD</b>	<b>Head of the Department</b>
<b>IL</b>	<b>Interactive Lecture</b>
<b>MIT</b>	<b>Modes of Information Transfer</b>
<b>MOD</b>	<b>Modular</b>
<b>OMFS</b>	<b>Oral And Maxillofacial Surgery</b>
<b>OPD</b>	<b>Outpatient Department</b>
<b>OSCE</b>	<b>Objective Structured Clinical Evaluation</b>
<b>OSPE</b>	<b>Objective Structured Practical Evaluation</b>
<b>PBL</b>	<b>Problem-Based Learning</b>
<b>PMDC</b>	<b>Pakistan Medical and Dental Council</b>
<b>PPT</b>	<b>PowerPoint Presentation</b>
<b>PW</b>	<b>Practical work</b>
<b>QEC</b>	<b>Quality Enhancement Cell</b>
<b>SC</b>	<b>Short case</b>
<b>SEQS</b>	<b>Short Essay Questions</b>
<b>SGD/S</b>	<b>Small Group Discussion/Session</b>
<b>SGIS</b>	<b>Small Group Interactive Session</b>
<b>Skill Lab</b>	<b>Phantom Lab</b>
<b>SURVIVE</b>	<b>Online Weekly assessment</b>
<b>SS</b>	<b>Self-Study</b>
<b>Viva</b>	<b>Viva</b>
<b>VD</b>	<b>Visual Display</b>

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## VISION AND MISSION STATEMENT

### **MISSION STATEMENT OF MUHAMMAD DENTAL COLLEGE**

Nurturing students' potential by providing them with the highest quality education, thereby producing individuals with strong values, compassion, **inclusiveness, leadership** and professionalism, emphasizing community engagement, particularly with marginalized segments of the rural population, encouraging students to become empathetic and socially responsible professionals by training them in the best evidence- based practice, capable of contributing to advancements through research and innovation.

### **VISION OF IBN-E-SINA UNIVERSITY MIRPURKHAS (ISUM)**

To be an internationally recognized institution, famous for its ethical work, emphasizing the importance of integrity, honesty, and moral principles, highlighting the University 's commitment to serving the community and producing unbiased and empathetic educated people, **who are inclusive and have leadership skills**, encouraging them to engage in research, critical thinking, innovation, and evidence-based best practices.

### **VISION OF LIAQUAT UNIVERSITY OF MEDICAL AND HEALTH SCIENCES (LUMHS)**

Liaquat University of Medical and Health Sciences (LUMHS) seeks to be a top-tier healthcare Institution, producing ingenious academic leaders, medical researchers, and healthcare advocates to serve the global community.

## BDS PROGRAM OUTCOME

**By the end of the Four years of BDS program at MUHAMMAD DENTAL COLLEGE (aims to produce dental graduates who are able to:**

- Demonstrate appropriate basics knowledge of medical and dental sciences.
- Evaluate the use of laboratory tests and imaging studies and interpret the results to arrive at clinical decision making by critical thinking.
- Recognize patient with special care and perform dental emergencies having good communication skills.
- Engage in research activity aimed at improving quality of health care, including behavior modification of individual and communities for quality life
- Elicit professional skills while providing patient-centered care by a relevant and comprehensive physical and dental examination.
- Commit to lifelong learning to keep up to date with developments in dental practice and trends in disease at the population level by strong leadership and management skills.
- To exhibit ethical patient-centered care based on integrity, humility, social accountability, and high ethical values of this sacred profession

**GOALS AND OBJECTIVES: COMPETENCIES REQUIRED IN A DENTIST TO BE ACHIEVED AT THE  
UNDERGRADUATE LEVEL  
STANDARDS OF SEVEN STARS COMPETENCIES**

The goal of creating a medical curriculum is to create skilled, compassionate, and effective medical professionals who can offer patients high-quality care. A modular integrated curriculum that synchronizes the BDS program results with the nationally designated seven-star doctor competencies has been developed in order to accomplish this goal.

The following are the anticipated general competencies for a medical/dental graduate:

1. Skillful
2. Knowledgeable
3. Community Health Promoter
4. Critical Thinker
5. Professional
6. Scholar
7. Leader and Role Model

"A seven-star physician" A Pakistani medical graduate ought to exhibit the different qualities listed under each competency. These qualities are the absolute necessities. The program's results are comparable to those that the country's regulatory bodies have processed for BDS graduates up to this point. These seven-star competencies are translated into the session-specific learning objectives by the curriculum outcomes.

A Pakistani medical graduate who has become a "seven-star doctor" is supposed to exhibit a range of qualities within each competency, according to the national regulating authorities. These characteristics are deemed necessary and need to be demonstrated by the person both personally and professionally.

A 'seven-star doctor' Pakistani medical/dental graduate should be able to demonstrate various traits as detailed under each competency. These attributes are minimum and not exhaustive by any means.

**I. Skills: Under Graduates must be competent to:**

- 1.1 Apply appropriate interpersonal and communication skills.
- 1.2 Apply psycho-social and behavioral principles in patient-centered health care.
- 1.3 Communicate effectively with individuals from diverse populations.
- 1.4 Well versed with basic dental morphology and application of dental materials

**II. Knowledgeable:**

**A. Assessment, Diagnosis, and Treatment Planning: Under Graduates must be competent to:**

- 2.1 Manage the oral health care of the infant, child, adolescent, and adult, as well as unique needs of women, geriatric, and special needs patients.
- 2.2 Identify, prevent, and manage trauma, oral diseases, and other disorders.

- 2.3 Obtain, and interpret patient / medical data, including a thorough intra/extra oral examination, and use these findings to accurately assess and manage patients.
- 2.4 Select, obtain, and interpret diagnostic images for the individual patient.
- 2.5 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 2.6 Formulate a comprehensive diagnosis, treatment, and/or referral plan for the patients.

**B. Establishment and Maintenance of Oral Health: *Under Graduates must be competent to:***

- 2.7 Utilize universal infection control guidelines for all clinical procedures.
- 2.8 Prevent, diagnose, and manage pain and anxiety in the dental patient.
- 2.9 Prevent, diagnose temporo-mandibular joint disorders.
- 2.10 Prevent, diagnose, and manage periodontal diseases.
- 2.11 Develop and implement strategies for the clinical assessment and management of caries.
- 2.12 Manage restorative procedures that preserve tooth structure, replace missing or defective tooth structure, maintain function, are esthetic, and promote soft and hard tissue health.
- 2.13 Diagnose and manage developmental or acquired occlusal abnormalities.
- 2.14 Manage the replacement of teeth for the partially or completely edentulous patient.
- 2.15 Diagnose, identify, and manage pulpal and peri-radicular diseases.
- 2.16 Diagnose and manage oral surgical treatment needs.
- 2.17 Prevent, recognize, and manage medical and dental emergencies.
- 2.18 Recognize and manage patient abuse and/or neglect.
- 2.19 Recognize and manage substance abuse.
- 2.20 Evaluate outcomes of comprehensive dental care.
- 2.21 Diagnose, identify, and manage oral mucosal and osseous diseases.

**III. Community Health Promoter: *Under Graduates must be competent to:***

- 3.1 Provide prevention, intervention, and educational strategies.
- 3.2 Participate with dental team members and other health care professionals in the management and health promotion for all patients.
- 3.3 Recognize and appreciate the need to contribute to the improvement of oral health beyond those served in traditional practice settings.

**IV. Critical Thinker: *Under Graduates must be competent to:***

- 4.1 Evaluate and integrate emerging trends in health care as appropriate.
- 4.2 Utilize critical thinking and problem-solving skills.
- 4.3 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.

**V. Professional and Role Model: *Under Graduates must be competent to:***

- 5.1 Apply ethical and legal standards in the provision of dental care.
- 5.2 Practice within one's scope of competence and consult with or refer to professional colleagues when indicated.

**VI. Researcher:** *Under Graduates must be competent to:*

- 6.1 Apply the current research for innovations in treatment, keeping at par with international standards
- 6.2 Conduct independent research based on the community requirements

**VII. Leader:** *Under Graduates must be competent to:*

- 7.1 Manage self, taking responsibility and utilizing the time to the best of his/her ability.
- 7.2 Effectively work in a group, as a leader or as a team member
- 7.3 recognize and comply with the working system of any Institute.

## INTRODUCTION OF STUDY GUIDE

When a dental student enters dental college, a new era of academic life begins. This study guide has been designed to help students sail smoothly during their transitional phase. The very first week is spent in familiarizing the students with the environment of Muhammad Dental College.

### 1. Objectives of Study Guide

The purpose of this study guide is to:

- Inform students what they are expected to learn during their study period.
- Guide students on how the student-learning program has been organized, and how it would be implemented.
- Help students organize and manage their studies throughout the year.
- Inform students about the code of conduct at Muhammad Dental College (MDC).
- Inform on organization and management of the team at MDC. This will help you contact the right individual in case you have any difficulty.
- Describe the course content that will be taught and what the students are expected to learn.
- Impart the information on learning methods that you will experience during the course. The methods include: tutorials, lectures, practical skills, experiments, field visits, OPD and research. These learning methods should help you achieve the course objectives.
- Guides you about the available learning resources for the terms. These include: books, computer-assisted learning programs, videos and other aids
- Makes you aware of the contribution of internal evaluation and term examinations to students' overall performance.
- Passes the information on the methods of assessment.
- Inform regarding the examination policy, rules, and regulations.

### 2. Preamble:

Integration has been accepted as an important educational strategy in medical education. PMDC & LUMHS believes in continuous curriculum revision through regular reviews and feedback of stakeholders. This curriculum has been updated with Correlation as a minimum level of integration in BDS. This curriculum is outcome based patient centered, community relevant, promotes health and prevents disease. It has been revised by the faculty of basic and clinical Dental sciences in collaboration with LUMHS Academic Directorate and MDC department of Medical Education

### 3. Curriculum Perspective

LUMHS curriculum is evolved taking into consideration constructivist and behaviorist with some element of cognitivist approach. It allows students to construct their own knowledge based on what they already know and to use that knowledge in purposeful activities requiring decision making, problem solving, and judgments.

### 4. Level of Integration:

MDC will follow Correlation i.e. level 7 of Harden's level of Integration in first three years. The emphasis remains on disciplines or subjects with subject-based courses taking up most of the curriculum time. Within this framework, an integrated teaching session or course is introduced in addition to the subject-based teaching. This session brings together areas of interest common to each of the subjects. Though the teaching is discipline based, topics are correlated and taught with clinical context for better understanding and application of concepts. However clinical teaching increases gradually with advancing years. BDS Year IV is for clerkships.

## 5. Curricular Organization and Structure

- a. In MDC, BDS curriculum in the first two years shall be delivered in a System Based Modular Format with clinical relevance. However, in year III, students shall get clinical exposure through rotations in the wards and OPDs and in Year IV through clerkships
- b. There are three modules in year I, each will have modules, duration of which depends upon the number and complexity of the objectives to be achieved in that module
- c. The curriculum will be delivered by modular teams of multidisciplinary basic science faculty and relevant clinical dental sciences faculty.
- d. The planning and delivery will be coordinated by year coordinators who will guide module coordinators of their respective years for efficient implementation
- e. Modular Coordinator will be responsible for teaching and assessment during each module. S/he will be appointed by Principal in coordination with Department of Medical Education.
- f. Clinical Coordinator will be responsible for placement, teaching and assessment during clinical rotations.
- g. MDC will provide study guides of each year to the students.
- h. To attain the integration in BDS program, teaching shall be done in three spirals Basis of Medicine (**Spiral I -Years I & II**): The syllabus will be integrated horizontally around systems of the body in which Anatomy, Physiology and Biochemistry will be taught with clinical relevance. Additional chunks of content will be added in a module that exactly does not fit in the central theme of the module.
- i. Longitudinal themes, General Education (**Behavioral Sciences, Islamiat, English, Pakistan Studies, Art & Humanities, Communication Skills, Clinical Care, Professionalism, Research Methodology, Leadership, Management, dental & Dental Ethics, patient Safety, EBM & Infection Control, ICT (Computer Skills, Self Study**) are an integral part of year I. However, assessment of these subjects will be the responsibility of institute itself.
- j. Islamiat and Pakistan Studies will be assessed by the University in first professional examination.
- k. Apart from attending daily scheduled sessions, students should engage in self-directed learning to achieve the desired objectives.
- l. Professional Exams will be module wise. There will be three papers, one paper for each module.

## 6. Competencies:

The focus of this curriculum is on the roles of a general physician as identified by PMDC. These are skillful, knowledgeable, community health promoter, critical thinker, professional and role model, researcher and leader. Competencies focused in year I and II are: -

- a. Medical Knowledge
- b. Procedural skills
- c. Problem solving
- d. Communication skills
- e. Professionalism
- f. Research

## 7. Outcomes:

By the end of Third year BDS, students should be able to:

- a. Apply clinical knowledge of dental sciences with medical sciences.
- b. Communicate clearly and effectively.

- c. Discuss the applied principles of research

**8. Academic calendar, Third Year BDS is attached at the end of the Study Guide:**

<b>9. Contact Hours Distribution Third Year BDS:</b>	
<b>Subjects</b>	<b>Contact Hours</b>
General Surgery	170
General Medicine	180
Oral Medicine & Diagnosis & Oral Radiology	150
Periodontology	180
Dental Public Health & Preventive Dentistry	200
Clinical Prosthodontics	80
Clinical Operative Dentistry	80
Oral & Maxillofacial & Anesthesia	80
<b>TOTAL HOURS</b>	<b>1120</b>
<b>GENERIC COMPETENCIES</b>	
Computer Skills	05
Communication Skills	05
Leadership	05
Teamwork	05
Ethics	05
Professionalism	05
Co-curricular activities/ Sports	70
<b>TOTAL HOURS</b>	<b>100</b>
<b>GRAND TOTAL</b>	<b>1220</b>

**10. Educational Strategies:**

(These are proposed, but institutes can use other evidence-based teaching methodologies that suit their context)

- a. Interactive Lectures
- b. Small group discussion
- c. Lab practical
- d. Skill lab
- e. Problem based learning/Case-based learning
- f. Tutorials
- g. Integrated sessions using any of the above strategies
- h. Self-directed learning (SDL) and directed self-learning (DSL)

**11. Resources:**

To be provided by the institute

- a. Faculty
- b. Facilities
- c. Administration for Course
- d. Administrative structure
- e. Communication with students

**12. Internal Assessment:**

Formative assessment (low stake) is at faculty discretion like mid module test and other class tests. There will be three end of modules and one pre-annual examination in year I, which will be taken by LUMHS

and contributes towards the weighing of internal assessment i.e. 20% in first professional BDS Examination.

**13. Annual Professional Examination:**

The University will take the first professional Examination at the end of the academic year. Annual Theory & Practical Examination will be of 200 marks for General Medicine, General Surgery, Community Medicine, Oral Medicine & Diagnosis, Periodontology and Operative Dentistry and Prosthodontics. The passing score is 50% in theory and practical separately

**14. Evaluation of the Course:**

To be filled in by the institute.

- a. The major goals of the evaluation are to monitor quality and improve curriculum
- b. Student portfolio shall be maintained in the departments in which students will give their feedback either by name or anonymously. Feedback may be taken at the end of module, online and informal student feedback during the running module.
- c. Faculty suggestions if any, for improvement of curriculum and teaching may be incorporated in the next session

**15. Implementation of curriculum**

- a. The university will give academic calendar, year wise distribution of modules, learning outcomes, table of specifications and assessment policy.
- b. Implementation of curriculum including time table, distribution of content across the whole years and rotations plan is upon the discretion of the medical college/institute.
- c. Early clinical exposure may be achieved by allocating hours to skill labs, Clinical dental sciences rotations in OPD/Wards, Medicine & Surgery ward visits in each module or patient may be brought before the students as per the decision of institute.

**EDUCATIONAL ROADMAP**  
**CURRICULUM FRAMEWORK OF A FOUR-YEAR BDS PROGRAM**

The BDS Curriculum in MDC is spiral in which students will learn the same topics throughout their education program with each encounter increasing in complexity and reinforcing previous learning.

**Vacations:** Students will avail vacations in accordance with the schedule decided by the College Academic Council. Hospital teaching continues during summer vacation. Students performing hospital duty will be divided in batches.

**Timetables** for various batches will be prepared by the timetable Committee as received the timetable grid from LUMHS. If needed, classes may also be continued during the summer vacation. Timetable of lectures, SGDs, practical classes and hospital training will be notified by the head of the institution before the commencement of the academic session and during the session if a change is required. Classes teaching, training, syllabus, courses, End of Module examinations & final professional examination are carried out according to the rules and regulations of the LUMHS.

- The Liaquat University of Medical & Health Sciences (LUMHS) has designed a four-year modular framework for Integrated Curriculum based on Specific Themes, Clinical Clerkships, Quran and Professionalism, Ethics, research & Leadership.
- The time calculation for completion of module is based on 35 hours per week.
- Total hours of teaching, learning and formative/summative internal assessment to be completed in a year are 1200.

Year	Module	Modular Configuration	Weeks
First Year BDS	1	Block I	12 Weeks
	2	Block II	12 Weeks
	3	Block III	12 Weeks
	General Education	General education (including Islamic studies, Pakistan studies, English, Arts & humanities, behavioral sciences, and research)	Parallel Subject
		Pre-Clinical Rotation in (Operative, Prosthodontics, Clinical Care, Dental Anatomy)	9*3=36 Weeks
Second Year BDS		Disease, Infections & Therapeutics I	17 Weeks
		Disease, Infections & Therapeutics II	
		Neoplasia, Hemodynamics & Genetics	10 Weeks
		Parallel Subject: Science of Dental Materials	36 Weeks
		Pre-Clinical Rotation in (Pre-Clinical Dental Sciences (Dental material, Operative & Prosthodontics) & Clinical care & Professionalism)	9*3=36 Weeks

	<b>General Education</b>	General education, including behavior science, ICT, and research	<b>Parallel Subjects</b>
<b>Third Year BDS</b>	1	Removal Prosthesis+ Research	<b>9 Weeks</b>
	2	Oral Medicine, Exodontia, Pain Control & Oral radiology (OMFS+ Oral Medicine & Diagnosis)	<b>9 Weeks</b>
	3	Cariology (Operative Dentistry)	<b>9 Weeks</b>
	4	Periodontics (Gingiva & Periodontal Disease) + Behavioral Sciences	<b>9 Weeks</b>
	5	Community Dentistry & Public Health Services & Oral Radiology	<b>36 Weeks</b>
		<b>General Medicine &amp; General Surgery</b>	<b>36 Weeks</b>
	<b>General Education</b>	PERLs 3 (Professionalism, Ethics, Research & Leadership), Behavioral Sciences, Medical Education & ICT.	<b>Parallel Subjects</b>
<b>Final Year BDS</b>	1	<b>Oral Maxillofacial Surgery</b>	<b>8 Weeks</b>
	2	<b>Operative Dentistry &amp; Endodontic</b>	<b>8 Weeks</b>
	3	<b>Orthodontics</b>	<b>8 Weeks</b>
	4	<b>Prosthodontics</b>	<b>8 Weeks</b>
	5	<b>Paediatric Dentistry</b>	<b>8 Weeks</b>
	<b>General Education</b>	PERLs 4 (Professionalism, Ethics, Research & Leadership), Behavioral Sciences, Medical Education & ICT.	<b>Parallel Subjects</b>

A few salient features that have been incorporated for all the three domains of training after deliberations and through an iterative process by subject experts, medical educationists and the university lead as follows.

- **Horizontal Integration- COGNITIVE:**

The Curriculum framework has 15 modules spanning 03 years. Horizontal integration is evident in the modular configuration where different basic disciplines approach the themes simultaneously. Modules have been structured where all the basic disciplines are represented based on their respective weightage of content. Assessment framework ensures that the applied/clinical aspect also is inculcated in the concept development of the learner keeping the clinical relevance and context at the core.

- **Clinical Relevance & Theme-COGNITIVE:**

The recommended themes and clinical relevance precede all module objectives. These are grounded in the rationale of the module so that the pattern of learning could be steered for a

practical professional approach. However institutional discretion does not prohibit adopting any other thematic approach provided that the program outcomes are adequately achieved.

- **Vertical Integration- COGNITIVE:**

Spiral placement of the modules within the framework ensures a revisit of the basic sciences. In the first step the applied / clinical learning objectives orient the learner and the repetitive module horizontally rhymes with the clinical rotations with a backdrop of basic sciences. The final year of clerkship is the final revisit, which is primarily workplace-based/log books and principally involves the perfect integrated blend of tri-domain learning.

- **C-FRC-PSYCHOMOTOR:**

Clinical Skills follow a spiral that is entirely skills dominant. This spiral is the core of psychomotor training. The first two years will be of **Clinical Skills- Foundation**, which will represent clinical orientation. The clinical orientation will be conducted in OPD, skills lab and simulation centers (depending on the available resources). The clinical orientation, along with the applied/clinical component of the knowledge base is important for the practical and professional aspect of learning.

The subsequent two years the spiral will move on to **Clinical Skills Rotations**. The rotations in different wards will be based on foundational developmental already commenced in pre-clinical years. The year 3 and year 4 which have the rotations will also have the second visit of the modules which would now be more clinically inclined with a stronger base of Pharmacology and Pathology. Community oriented practices will also be broadening the element of systems thinking and diversity of practice for a healthcare leader of tomorrow.

- **Clinical Clerkship:** Finally, **Clinical Clerkships** are aimed to be entirely facilitated in workplace environments. The clerkship model will involve the delegation of duties thus adding to the acquisition of professional accountability as a competency. The psychomotor training and skills acquisition will be the maximum in the year of clerkship. The entire process of Clinical competencies will be endorsed in a logbook which would be the training base of the learner for future references and exam evaluations.

- **PERLs-AFFECTIVE:**

Affective training has been formally inculcated in the curricular framework. The model of PERLs has been introduced so that the yield of doctors has a strong, resilient, ethically driven character. PERLs stands for Professionalism, Ethics, Research and Leadership skills. PERLs rounds up professional development for the effective application of the knowledge and skills base achieved. For a professional to be social accountable and to be able to play the healthcare leadership role for societal elements like advocacy, equity or resources and healthcare access, a formal training is a must.

The spiral of PERLs will be monitored directly by the respective department of Medical Education. However, the teaching sessions, and mentoring process, can and will be assigned to other disciplines. For example, communication skills can have an input from the faculty of Family Medicine and research can be facilitated by the Community Medicine & Public Health faculty. Ethics can be jointly covered by the Behavioral sciences. Leadership is an ambit where the students will be motivated if the institutional leads themselves get involved and can also have the input of the successful alumni. The Faculty of Medical Education will look after the entire process and will also engage in the teaching sessions, when and wherever required.

## STUDENT'S CODE OF CONDUCT

The administration manages the code of conduct, discipline, dress code, and educational performance. There is a director designated for dealing with Student Affairs.

The Vice Principal/administrator can be approached for queries on educational matters, any breach of discipline, and referrals for electives, and advice about leave of absence or leave for medical reasons. All faculty members are also responsible for maintaining all aspects of discipline. Breaches of the university's code of conduct are routinely referred to the committee and disciplinary action is taken as it deems appropriate.

### 1. Dress code:

#### Male students:

1. Casual Trousers
2. Jeans (Plain blue) without an image, graphics and write ups
3. Casual Shirts (Half/ Full sleeves)
4. T Shirts without any messages, images, graphics and write ups
5. Casual shoes or Joggers with socks
6. Shalwar Qameez with shoes (only on Friday)
7. Suit/ Combination
8. Coat/ Pullovers/ Sweaters/ Jackets in winter

#### Female students:

1. Shalwar Qameez
2. Hijab, Abaya, Chaddar etc
3. Full length Jeans with long shirt/ kurta (knee length)
4. Light jewelry and light makeup
5. Shoes, Sandals and Joggers
6. Duppatta/ Scarf is compulsory with all dresses

**NOTE: MDC students are expected to wear white coat during classes, hospital rotations and other wise.**

### 2. Personal behavior.

The University expects that all students should sustain professional manner when interacting with colleagues and others. The University recognizes that personalities, characters and management styles may differ but, notwithstanding these differences, as a minimum standard, all staff is expected to:

Work co-operatively with others in order to achieve objectives, and establish good working relationships. All should behave and speak professionally, respectfully, and courteously at all times.

- Tidiness and cleanliness must be adhered at all times within the MDC premises which will help us maintain a safe, clean, and professional learning environment.
- Use the college's property, facilities, supplies, and other resources in the most effective and efficient manner.
- Unacceptable behavior such as Aggressive or abusive behavior, shouting or personal insults or spreading rumors or gossip, or insulting someone is to be avoided at all costs. All these matters, if experienced, should be reported to the vice principal or administrator or a senior faculty member.

### 3. Punctuality.

Students are expected to arrive in class well in time. All cell phones, smart phones, and other electronic devices (e.g., pagers, iPods) must be turned off and hidden from view during class time. Talking and

other disruptive behaviors are not permitted while classes are in session. If the students miss a class they are themselves responsible for the missed part of the course. It is the student's responsibility to contact a classmate or teacher to determine and cover what was missed.

At MDC classes starts immediately after holidays. There is no lag period after leave. There will be no relaxation for students who were absent. **Please inform your parents of this and make your travel arrangements accordingly.** Avoid taking leave for personal reasons like weddings during the academic year.

#### **4. Conduct in Hospital:**

While working in a hospital and when dealing with patients, treat those whom you serve, with whom you work, and the public with same degree of respect you would wish them to show you.

Treat patients and colleagues with kindness, gentleness, and dignity. Respect the privacy and modesty of patients. Do not share the medical or personal details of a patient with anyone except those health care professionals integral to the well-being of the patient or within the context of an educational endeavor. Lastly, students are required to strictly follow the college dress code during and outside the college hours inside the campus & at hospital.

#### **5. Conduct in the library, cafeteria and common rooms:**

Use of Library is to help support learning and promote academic success. Through the Library, the college provides students with access to computers, books, periodicals, study space, and other academic help, comfortable seating, and formal and informal learning spaces. Students are expected to follow college rules, guidelines, and the honor code of conduct in order to maintain their good standing and to continue receiving library privileges.

Use the cafeteria and common rooms with care, courtesy, and respect for others. Place garbage and recyclables in the appropriate containers. This behavior will maintain a clean and enjoyable environment for all.

## COLLEGE DISCIPLINARY COMMITTEE

The Committee deals with the maintenance of discipline on-campus. All cases of breach of discipline will be brought before this committee. The ruling of the committee cannot be challenged. The student will be dealt accordingly.

### Students are to avoid the following: -

- a. Unauthorized use of the University's name or logo, which is property of the University
- b. Harassment, sexual or otherwise, or intimidation of any member of the University
- c. Coming late for classes. The student may be considered absent and marked accordingly.
- d. Improper/inappropriate dress
- e. Loud and aggressive behavior in Cafeteria common rooms or within the premises of the MDC/Hospital and University.
- f. Non-clearance of bills/dues. Non-clearance of dues may prevent student from appearing in the professional examination. The student may also be refused permission to attend classes.

### Smoking

Smoking is strictly prohibited in campus.

## POLICY ON DISCIPLINARY ACTION AGAINST USE OF UNFAIR MEANS

Zero tolerance for cheating/use of unfair means is to be maintained during Examinations.

A committee is to be formulated to consider all the cases pertaining to **plagiarism and use of unfair means** in exams. Two committees are to be formed; one each for MBBS and BDS. These committees are to be headed by the respective Principals.

The Committee shall follow the following procedures in handling such cases:

- a. The Invigilator who has caught the student using unfair means will report to the Head Invigilator, who will inform the Head of the Examination Department, MMC.
- b. The material being used and the answer sheet will be confiscated immediately.
- c. The Principal Dental Section will be informed at once.
- d. Further action will be taken locally by the Disciplinary Committee against use of Unfair Means and Plagiarism which has been formed. The punishments which this committee can advise are: withdrawal from that paper, withdrawal from the entire examination but allowed to sit for supplementary or to repeat the year or get expelled from college.
- e. Chancellor ISU will be the approving authority for the recommendations of the committee.
- f. Director Examinations ISU will be informed in writing of the action taken.
- g. The material being used and the concerned answer sheet will be sealed and kept at MMC examinations department.
- h. Instruction explaining the term "unfair means" will be displayed at the venue of examination as well as given in study guide.
- i. Following actions are considered as "unfair means"
  - Possession of written material/ books/ notes of any sort within the examination venue, whether that material is related or unrelated to the paper.
  - Writing on palm, arm or anywhere on the candidates body/clothing.
  - Any attempt to copy, take or give help during examination.
  - Possession of mobile phones, personal digital appliances (PDAs) and any other electronic device.

## **SRMLG SYSTEM TO EXECUTE AND MONITORING OF THE CURRICULUM:**

Some people like to fondly remember these pillars by “Syed Razi Muhammad’s Learning Group” (SRMLG).

Ibn e Sina University, Mirpurkhas (ISUM) is a newly formed University, which is the first university of Mirpurkhas Division. It follows a vertically integrated modular system. There are 37 modules divided in 5 years of MBBS Curriculum and 16 modules in four years of BDS program. Each year has an average of 36 to 40 weeks of studies. Weekly plan is organized as a “theme”.

Regular classes, practicals, clinics, and hospital duties are amply supported by 5 pillars that contribute to the high standards of this first-ever university of Mirpurkhas division. These pillars include:

1. **“Survive”** a three-pronged system of weekly tests, assignments and post-test discussions.
2. **“RLSE”** or “Running Lives by Sharing Experiences”, a weekly mentoring program.
3. **“MCS”** or daily “Mobile Clinics by Students”.
4. **“LBAS”**, or “Learner Based Annual Symposia”.
5. **“GSAT”** Annual “Gastroenterology session with Students as Teachers”. Conducted by Prof. Dr. Syed Zafar Abbas.

### **1. SURVIVE:**

In ISUM, like weekly “Survive” and other tests, assignments include posttest Discussion (PTD) and attendance.

### **2. RLSE” or “Running Lives by Sharing Experiences”, a weekly Mentoring Program.**

#### **Significance of Mentoring in ISUM:**

**“**Mentoring in higher education or medical education plays a vital role. It helps students or young professionals develop skills, gain insights, and build confidence. A good mentor provides guidance, support, and valuable feedback, which can lead to better academic or professional outcomes. In medical education, mentoring is particularly crucial as it helps shape future healthcare professionals. Some benefits include:

- Personalized guidance and support
- Improved critical thinking and problem-solving skills
- Enhanced professional development and networking
- Increased confidence and self-awareness
- Strengthening the teacher and student relationship.
- Better academic or professional performance

One contact hour is reserved for students’ character building and development during regular mentoring activities.

**Time:** Meeting time will be reserved for one hour per week (Wednesday 1-2 pm between mentees & mentors, schedule is mentioned in the timetables of all respective years and programs.

Mentor will have weekly meeting with 5-10 students every week at the mentoring hour (Wednesday 1-2pm). In a class of 100 about 12 and in a class of 50 about 8 mentors have assigned the role of mentor.

- **Chief Mentor:** Prof. Dr. Farzana Majeed
- **Course Coordinator:** Dr. Kiran Fatima
- **Course Manager:** Mr. Mehmood (Responsible to get all the weekly data completed and updating it online).

- **Meeting Venue & time:** Every Wednesday (from 1:00-2:00 pm) for meeting with the mentees- must be in the timetable slot
- **Meeting with chief mentor:** Every Thursday (from 1:00-2:00 pm)
- **Name of the Mentors of Final year BDS:**
  - Dr Asma Kauser
  - Dr Shagufta
  - Dr Faryal
  - Dr Najmus Seher
  - Dr Nimra Kaka
  - Dr Saif ur Rehman
  - Dr Ali Raza Zia

#### **RESPONSIBILITIES OF CLASS COORDINATORS/TIMETABLE COORDINATOR:**

- ❖ Will ensure that the attendance and results of boys are posted in the boys' group and parents of boys' group; similarly, attendance and results of girls are posted in girls' group and parents of girls' group.
- ❖ Keep the record of Mentoring, SURVIVE, attendance, and Assignments in soft & hard form
- ❖ Please ensure that parents of poor performers are called for a meeting with the senior faculty member.
- ❖ Class coordinators are mentors too' of their respective year group, such as class (A1, 2, 3, B1, 2, 3, C1,2,3 and D1, 2, 3).
- ❖ This will help students to liaise with the class activities.
- ❖ Coordinators should help in completing the parents' groups, adding the contacts of parents and ensuring that only the admins should be able to post in the groups.
- ❖ They must also share the attendance and results of weekly survive and any other tests in students' and parents' groups.
- ❖ They also need to coordinate with the HoDs, Chief Mentors and Principals.

#### **3. MOBILE CLINICS BY THE STUDENTS (MCS)**

“MCS” or daily “Mobile Clinics by Students” is a part of the unique 5-pillars system, which supports the vertically integrated modular system of Ibne Sina University, Mirpurkhas (ISUM). This was started in 2018 in collaboration with APPNA, when the President of APPNA supplied 4 mobile health systems to MMC/ ISUM to run this unique system. In the MBBS program from the third year till final year students and in the BDS Program, third year & final year BDS students must have to participate in the MCS, in groups of two from each class as per the schedule provided by the administration.

#### **4. LEARNER BASED ANNUAL SYMPOSIUM (LBAS) 26<sup>TH</sup> SYMPOSIUM:**

5. LBAS has been conducted every year from previous 26 years along with the exceptional team of academicians, students, and staff for 26 consecutive years. In 2024, Rigorous reverberation on scientific symposium started from October 1 to 11, 2024, encompassing pre-symposium workshops, research papers from faculty, students and invited speakers from Karachi, Hyderabad, Nawabshah, Sukkur, Gambat & other cities of interior Sindh. Muhammad Medical College, Mirpurkhas, Sindh, successfully organized pre-symposium workshops, a symposium, and a conference on the theme as

**Role of Universities in Promoting Higher Education in Underprivileged Areas of Pakistan**

The events aimed at providing a platform for medical professionals, researchers, and students to share knowledge, exchange ideas, and discuss cutting-edge advancements in the field.

**6. “GSAT” ANNUAL “GASTROENTEROLOGY SESSION WITH STUDENTS AS TEACHERS”**



**IBN-E-SINA UNIVERSITY, Mirpurkhas - 2024**

Online Moodle Test Schedule for 2024

S. No	Days	Time	Year/Class
1	Monday	01:00pm to 02:00pm	Third Year BDS
2		02:30pm to 03:30pm	Final Year MBBS
3	Tuesday	10:00am to 11:00am	Third Year DPT
4		01:00am to 02:00PM	Fourth Year MBBS
5		02:30pm to 03:30pm	Final Year BDS
6	Wednesday	02:30pm to 03:30pm	Third Year MBBS
7	Thursday	10:00am to 11:00am	Second Year BDS
8		11:00am to 12:00pm	CHPE Morning Program
9		12:00am to 01:00am	Second Year DPT
10		02:30pm to 03:30pm	Second Year MBBS
11	Friday	11:30am to 12:30pm	First Year DPT
12		12:30pm to 01:30pm	First Year BDS
13		02:30pm to 03:30pm	First Year MBBS

Muhammad Medical College (MMC), a constituent college of Ibn-e-Sina University, Mirpurkhas (ISUM), has become an icon in the field of medical education and healthcare services in Pakistan. Not only it provide quality formal medical education, but as part of its innovative activities, it keeps holding several nontraditional activities to stimulate and provoke scientific curiosity among its students and teachers throughout the year. It therefore came as no surprise that under the leadership of its Chancellor Professor Syed Razi Muhammad, ISU received the prestigious National Healthcare Excellence Award 2025 recently at Lahore from the Federal Minister of Health in early April this year.

**MENTORING GROUP WITH NAME OF MENTORS**

**THIRD YEAR-BDS**

<b>Group</b>	<b>Mentors</b>	<b>Meeting venue and time</b>	<b>Mentee1 (GPL)</b>	<b>Mentee2</b>	<b>Mentee 3</b>	<b>Mentee 4</b>	<b>Mentee 5</b>	<b>Mentee 6</b>	<b>Mentee 7</b>
<b>A1</b>	Dr. Doha		Aisha Mustafa	Ajwa Hareem	Alia	Aliba Shah	Aliza Malik	Amna Qayum	Aniza Mari
<b>A2</b>	Dr. Maya		Ansha Missri	Areeba	Bushra Bukhari	Ifra	Laiba	Laiba Kiran	Laiba Pervaiz
<b>B1</b>	Dr. Beenish		Mahnoor Khan	Maira Ihsan	Maryam Yousif Rustamani	Memoona	Muskan Zahra	Nimra	Pirah Gul
<b>B2</b>	Dr. Champa		Rafia Batool	Raafia Khan	Rida-E-Zainab	Rukhshar Ali	Sadia Kiran	Sidra Ayoub	Tayyaba
<b>C1</b>	Dr. Sajid		Qalandar Bux	Ali Ahmed	Ameer Bux	Babar Ali	Bilal Rashid	Mubeen Ahmed	Muhammad Kashif Syed
<b>C2</b>	Dr. Tariq		Noor Ahmed	Sabeet Khan	Sajid Ali	Shahzad Akbar	Syed Hussnain Raza Zaidi	Syed Muhammad Noorullah	
<b>D1</b>	Dr. Paras		Tayyaba Jallal	Tooba Mehmood	Ume Rubab	Umm E Hamna	Umm-E-Farwa	Urooj Fatima	Yusra And Zara Karim

## LEARNING STRATEGIES

### **Interactive Lectures:**

The traditional lecture system is used to introduce a subject and discuss the broad concepts in that specific field of study. Interactive lectures to smaller groups remain an effective and essential way of teaching. More recent methods of learning and teaching, such as case-based learning and small group-based problem-solving sessions are also employed.

### **Small Group Based Learning:**

Small group and tutorial sessions are regularly held to enable students to discuss the details of a lecture topic. Students are expected to prepare presentations on applied topics and discuss their implications with their fellow students. The lecturer acts as a facilitator. By participating in these group discussions, students can interact and learn from one another.

### **Hands on Training:**

Students in final year students will deal daily with patients in OPD, moreover students of BDS program are exposed to pre-clinical dental subjects from very first year of BDS to gain, enhance and polish their clinical knowledge and skills. Lectures and tutorials will regularly be held for providing clinical orientation on the subjects.

### **Clinical/Practical Learning:**

Theoretical and practical knowledge is augmented with community services and integration of clinics. Clinical case presentations provide students with essential hands-on experience. Pre-Clinical teaching and exposure to students is provided from very first year of BDS program.

### **Community-Based Learning:**

MDC is committed to provide the environment and training that would enable professionals to successfully contribute to the improvement of the health sector, particularly in less privileged communities under the Community-Oriented Medical Education Program. Community-Based Learning is provided to students in collaboration with the Community Dentistry and Community Medicine Departments.

The university involves its students in research-developing work in these designated communities.

Students are encouraged to participate in the preventive and curative care and management of patients and their families in Primary Health Care field settings from very first year of the BDS program.

### **Problem-Based Learning (PBL):**

Various learning strategies are implemented in all four years of dental education, focusing on small group teaching. In pre-clinical or junior years, the learners are exposed to teaching strategies like problem based learning (PBL), large group discussions, small group discussions, demonstrations, Skills lab, interactive tutorials, seminars, poster competitions and simulations, while clinical students are exposed to case based learning (CBL), clinical rotations, small group discussions, didactic lectures, Skills lab, interactive sessions and seminars.

The typical features of PBL and CBL are aimed at student-centered learning. PBL has formed the core of many educational programs throughout the world in recent decades, promoting an orientation towards active learning in small collaborative groups. Many models of PBL has evolved to fit into different curriculum structures, meet diverse learning needs and accord with available resources. A tutor

facilitates the group learning process. The PBL problem introduces a real patient or a hypothetical case. In this students identify the key elements of the case, develop and test hypotheses based on the pathophysiological mechanisms, decide on the diagnosis and discuss principles of management. The development of PBL cases is a challenging process, as each case must reflect a defined set of learning objectives, have face validity, suit the student's stage of maturity, and fit with restraints of time and resources. A typical PBL tutorial consists of a group of students (usually 8 to 10) and a tutor, who facilitates the session with minimum interference. The PBL tutorials comprised of three sessions of two hours and the time is allocated in the timetable.

### **Case-based learning (CBL):**

Case-based learning (CBL) is an adaptation of the PBL process and is used more generally in clinical medical education to provide knowledge in context and to offer opportunities for the development of clinical reasoning and judgment. Written case studies, prepared by the tutors present the background data and students are required to work together to identify the clinical problems, prepare differential diagnoses and suggest potential investigations and treatment. Students set their own learning objectives and identify the learning resources required to confirm or refute their diagnostic possibilities. The CBL format is flexible and may involve the incorporation of role play or the acquisition of data by gaining further clinical experience to solve the clinical problems. CBLs are overseen by facilitators who guide the students in case they are not on the right track as unlike PBLs, the CBL session has to be completed in one day.

## **ATTENDANCE POLICY FOR STUDENTS**

PMDC rules for eligibility in annual examinations.

- Minimum attendance requirement is 75% in each subject: attendance is for lectures, demos, practicals, clinics, PBLs, SURVIVE, CPC, presentations etc: indoor and outdoor.
- The attendance is not simply for lectures.

Attendance is maintained by the Department of Student Affairs at MDC.

All students should try and achieve 100% attendance. Every teaching session is essential. You are expected to have at least 75% attendance in all subjects individually; to be allowed to appear in the professional examinations.

- a. Lecture Attendance is marked at the start of the class.
- b. Students who come more than 10 minutes late will be marked absent.
- c. A random head count is done to ensure correct entry of attendance.
- d. The attendance sheet is signed by the teacher and sent to Department of Student Affairs.
- e. The attendance is entered into the spread sheet as soon as possible on that day.
- f. No correction will be made later than 24 hours as the system is then locked.

### **ATTENDANCE FOR LECTURES, DEMOS, PRACTICALS ETC**

- a. The teacher will mark the attendance of students and countercheck it by Head count. The attendance sheet should not be rotated among the students.
- b. The teacher/ assistant/CR must immediately hand over the attendance sheet to the Scholastics Department daily
- c. Attendance submitted later than Friday of the current week will not be accepted.

The University rules permit a 5% shortfall for genuine reasons of personal illness of a life-threatening nature or unavoidable circumstances such as death of a blood relative. This 5% relaxation cannot be taken in case of students going away for holidays.

In case of attendance less than 75% even due to health issues, you will be asked to repeat the year.

### **ATTENDANCE POLICY FOR STUDENTS REPEATING THE YEAR**

- a. Students who are repeating the year either due to poor attendance or failure in professional or supplementary examination will need to attend all the classes of the particular subject in the next year.
- b. Their previous years' attendance will not be taken into consideration.
- c. If their attendance is AGAIN less than 75% in the current academic year, they will not be allowed to appear in the upcoming annual examination.
- d. This includes all practical classes, demonstrations, CBL sessions, lectures and clinical classes.

### **ATTENDANCE POLICY FOR STUDENTS APPEARING IN SUPPLEMENTARY EXAMS**

- a. Only those students who have appeared in the professional examination can appear in the supplementary examination.
- b. Students who were not eligible for the annual exam will not be allowed to sit in the supplementary exam either.
- c. Those who did not avail the chance must repeat the year and cannot appear in the supplementary.

- d. Students who fail to pass their first annual exam will be provisionally promoted to the next class while preparing for the supplementary examination.
- e. Attendance will be marked in the class to which they have been promoted.
- f. The students will prepare for the supplementary exams in their personal time without compromising the attendance of the year they are provisionally promoted to .
- g. In case the student fails to pass the supplementary exam he/she will revert to the previous class and the attendance in the new class will be counted in the class to which they revert to.
- h. Those students who do not attend classes will be marked absent and may face a shortage of attendance and will be asked to repeat the year.

### **ELIGIBILITY CRITERIA FOR APPEARING IN ANNUAL PROFESSIONAL EXAMINATIONS**

A student will be eligible to appear in the annual professional examination if he/she fulfills the following criteria:

- a. At least 75% attendance in every subject.
- b. Have cleared all financial dues.
- c. Must appear in all three end-of-module examinations.
- d. Must have scored passing marks in at least two of end-of-module examinations.
- e. No breach of discipline should have occurred for which the Disciplinary Committee has advocated a punishment.
- f. A student who has failed 2 end-of-module tests will be permitted a “resit” at the end of the academic year.
- g. Students who did not appear in end of end-of-module tests will not be allowed in the “resit”.
- h. No student can appear in one subject in an annual professional examination but must appear in all the subjects for that year.
- i. Subjects may be designated for the supplementary exams or for students repeating a year.
- j. There will be no remedial or extra classes in any subject for making good the shortfall in attendance.
- k. Departments may offer revision classes but these will not be considered formal classes and will not be entered in the regular attendance.

## POLICY OF ASSESSMENT

MDC will conduct periodic tests as well as end of the chapter tests in each subject on regular basis. Most of the tests will be conducted online, similar to the Muhammad Medical College.

There is a policy of ongoing or formative assessment of all students and summative assessment at the end of the module. Muhammad Dental College Mirpurkhas is affiliated with Liaquat University of Medical & Health Sciences, Jamshoro.

### Formative or ongoing assessment:

- Marks for CBL sessions, SURVIVE, logbooks, history writing or clerking of patients.
- End of OPD rotation examinations, CATs, quizzes and tests held in a department. The end-of-module test comprises:
  - OSCE or OSPE examination
  - Viva voce exam.
  - Written theory examination
  - The written examination has 2 parts an MCQ and a short answer or short essay type examination.

### Summative Assessment:

- Annual examination will be conducted by the affiliating university as per PM&DC guidelines.
- **The end-of-module test comprises 30% of the final professional examinations**
  - Written Final professional theory examination based on MCQs=70%
- **Final OSPE/OSCE.OSVE:**
  - OSCE or OSPE examination, Viva voce exam=80%
  - Internal evaluation =20%

### Generation of internal evaluation marks from each module.

- 20% MARKS will be calculated from each end of the module exam and will be counted in the final examinations. The Internal evaluation is communicated to the University by the administration department.
- 

SCHEME OF INTERNAL ASSESSMENT/EVALUATION-20%-2025			
Overall attendance		7%	
Modular Test/Ward test/OPD Test		2% (6%)	
SURVIVE		7%	
SURVIVE 7%			
Final Year		Remaining Years	
Test	3%	Test	3%
Assignment	2%	Assignment	2%
Post Test Discussion	2%	PTD/Practical Book/Logbook	2%
Total	7%	Total	7%

## POLICY FOR ELECTIVES

- a. Electives are not mandatory nor are they a part of the curriculum. Electives are considered add on extra-curricular activities with benefits for selection for jobs or postgraduate training after BDS.
- b. The Electives Rotation will be of four weeks' duration.
- c. It will be planned at least six months in advance during the 3<sup>rd</sup> or 4<sup>th</sup> Year.
- d. The Elective will be planned during the **SUMMER HOLIDAYS** preferably.
- e. The institution or department will be of the student's choice.
- f. During the elective, the student will not get credit for attending lectures at MDC.
- g. **It is the student's responsibility to ensure that his/her overall attendance record is not affected adversely by the elective.**
- h. The student will not proceed on an elective without informing the Principal or Concerned chairperson designated for this purpose who will take permission from the Principal.
- i. The student will sign a waiver to the effect that any shortfall in attendance is his /her own responsibility and will be dealt with as per rules of Liaquat University of Medical & Health Sciences (LUMHS).
- j. The adequacy of education during the elective is the student's own responsibility.
- k. Permission to attend an elective is given by the Associate Dean designated for this purpose. This simply implies that the college authorities are aware that the student is away for this period so that admission is not cancelled.
- l. The student will ensure that the Elective Supervisor completes an evaluation report at the end of the elective.
- m. MDC will not provide any financial assistance for the elective.

## **DIRECTORATE OF STUDENTS' ACTIVITIES**

Directorate of Student Affairs is responsible for providing a constructive learning environment that fosters positive learning, personal development and enhances the quality of life for students. This department encourages students to achieve the objective of building a balanced personality.

The Directorate of Students Affairs establishes a connection between students, faculty and University administration. It is an important component of university that offers a platform for curricular and co-curricular activities to explore, enlighten and polish the hidden capabilities of the students so that they can enjoy pleasant environment and deliver a series of programmes to enrich the campus life. It is committed to enable all students to participate in an engaging, healthy, and active learning environment during their time at MDC-ISU. All these pursuits tend to improve the level of confidence among the students.

### **The Directorate has the following major duties**

- To promote extra co-curricular and cultural activities such as organizing Debate competitions, Quiz competitions, workshops, Bake sale, welcome party, and farewell.
- Providing sports facilities and regular organization of sports competitions.
- Arranging different lecture sessions for Personal and Professional Development.
- Arranging community visits.
- Conducting various seminars on current national and international issues.
- Arranging blood donation camps and much more.

## THE MODULAR SYSTEM AND SEQUENCE OF CONTENT

Organization of modular curriculum and teaching from First to Third year BDS & Conventional Curriculum in Final Year.

The modular configuration with duration is mentioned as under.

Year	Module	Modular Configuration	Weeks
First Year BDS	1	Block I	12 Weeks
	2	Block II	12 Weeks
	3	Block III	12 Weeks
	General Education	General education (including Islamic studies, Pakistan studies, English, Arts & humanities, behavioral sciences, and research)	Parallel Subject
		Pre-Clinical (Rotation in Operative, Prosthodontics, Clinical Care, Dental Anatomy)	36 Weeks
	Second Year BDS	Disease, Infections & Therapeutics I	17 Weeks
		Disease, Infections & Therapeutics II	
		Neoplasia, Hemodynamics & Genetics	9 Weeks
		Dental Materials & Pre-Clinical Dental Sciences	9 Weeks
		General education, including behavior science, ICT, and research	Parallel Subjects
Third Year BDS	1	Removal Prosthesis+ Research	9 Weeks
	2	Oral Medicine, Exodontia, Pain Control & Oral radiology (OMFS+ Oral Medicine & Diagnosis)	9 Weeks
	3	Cariology (Operative Dentistry)	9 Weeks
	4	Periodontics (Gingiva & Periodontal Disease) + Behavioral Sciences	9 Weeks
	5	Community Dentistry & Public Health Services & Oral Radiology	36 Weeks
		<b>General Medicine &amp; General Surgery</b>	36 Weeks
	General Education	PERLs 3 (Professionalism, Ethics, Research & Leadership), Behavioral Sciences, Medical Education & ICT.	Parallel Subjects
	1	<b>Oral Maxillofacial Surgery</b>	8 Weeks
	2	<b>Operative Dentistry &amp; Endodontic</b>	8 Weeks
	3	<b>Orthodontics</b>	8 Weeks

<b>Final Year BDS</b>	<b>4</b>	<b>Prosthodontics</b>	<b>8 Weeks</b>
	<b>5</b>	<b>Paediatric Dentistry</b>	<b>8 Weeks</b>
	<b>General Education</b>	<b>PERLs 4 (Professionalism, Ethics, Research &amp; Leadership), Behavioral Sciences, Medical Education &amp; ICT.</b>	<b>Parallel Subjects</b>

- a. Learning objectives for each module are written down in the study Guide issued at the beginning of each academic year to each student. Curriculum for each module can be provided on request.
- b. A schedule is issued for each module re-enforced by a weekly schedule issued 2 weeks in advance of the teaching dates.
- c. This includes lecture, CBL, Practicals, Demonstrations, Ward Clinics, Evening Clinics, Classes in Skills Lab, Self-Study and Library period.
- d. The assessment schedules such as end-of-module tests as well as period of preparation leave and timing of OSCE/ OSPE, are given in the Academic Calendar.
- e. The assessment result is displayed on departmental notice boards and recorded in the Examinations Department of MMC and Student Affairs of MDC.

FACULTY OF DENTISTRY, LUMHS, JAMSHORO  
Third Professional B.D.S (2022-23) / Lecture & Practical Schedule

Module: Systemic Disease Management

DAY	CLINICAL ROTATION	PRACTICAL	INTERACTIVE LECTURES	
	08:00 AM to 10:00 AM	10:00 AM to 11:00 AM	11:00 A.M to 12:00 P.M	12:00 P.M to 01:00 PM
FRIDAY	Medicine & Surgery Wards/Units at Liaquat University Hospital Jamshoro (A1, A2, A3, A4, B1, B2, B3, B4)	Undergraduate Skill Lab.	Medicine Lecture (Dentistry Hall-1)	Surgery Lecture (Dentistry Hall-1)



PROF. DR. FERDZE' ALI KALHORO  
Dean Faculty of Dentistry  
LUMHS, Jamshoro

## **INTRODUCTIONS TO DEPARTMENTS**

**Department of Periodontology**

**Department of Oral Medicine & Diagnosis & Oral Radiology**

**Department of Oral Maxillofacial Surgery**

**Department of Community and Preventive Dentistry**

**Department of Prosthodontics**

**Department of Operative Dentistry**

**Department of General Surgery**

**Department of General Medicine**

## DEPARTMENT OF DENTAL EDUCATION

High-quality Medical /Dental education is a vital prerequisite for high-quality patient care. Dental education's ultimate aim is to supply society with a knowledgeable, skilled and up-to-date cadre of professionals who put patient care above self-interest, along with developing their expertise over the course of a lifelong career.

The department of Dental Education has expanded beyond the classroom all around the world, and quality patient care is learned by bedside teaching and with the practical introduction of clinical cases in preclinical years. The Dental Education department ensures that the educational content synchronizes with the learning strategies, the assessment tools, and provides effective feedback to enhance the learning process. The Department of Medical/ Dental Education at Ib-ne-Sina University is interested in raising the standards of teaching by continuously developing a pool of trained faculty members. Faculty training is done in educational content as well as in diverse teaching skills to encourage a flexible and learner-centered approach during teaching. For this purpose, interactive, practical, and hands-on workshops are constantly designed, focusing on current and effective modes of evidence-based teaching and assessment tools. Self-reflection and critique of teaching techniques are also vital in propelling an Institute towards excellence. Our Dental Education department aims to achieve that and more.



### FACULTY IN THE DEPARTMENT OF DENTAL EDUCATION

Name	Designation	Qualification
Prof Dr Syed Razi Muhammad	Chairman/Professor	<b>MBBS, FCPS, FRCP, MHPE</b>
Dr Kiran Fatima	Assistant Professor	BDS, MCPS-HCSM, MHPE
Dr Taqdees Maryam	Lecturer	BDS, CHPE
Dr Nosheen Zafar	Lecturer	BDS, CHPE

## DEPARTMENT OF PERIODONTOLOGY

Periodontology is the specialty of dentistry that studies supporting structures of teeth, as well as diseases and conditions that affect them. The supporting tissues are known as the periodontium, which includes the gingiva (gums), alveolar bone, cementum, and the periodontal ligament. A professional who practices this specialty field of dentistry is known as a Periodontist.



### FACULTY IN THE DEPARTMENT OF PERIODONTOLOGY

Name	Designation	Qualification
Dr Zaibunisa Qadeer	Chairperson/Professor	<b>MBBS, MCPS, CHPE</b>
Dr Yousuf Moosa	Professor	BDS, MDS, Ph.D
Dr Tipu Sultan	Assistant Professor	BDS, MDS
Dr Waqas Abbassi	Registrar	BDS
Dr Neelam Akram	Registrar	BDS
Dr Syeda Fouzia	Registrar	BDS
Dr M Aqib Rana	Registrar	BDS

## DEPARTMENT OF ORAL MEDICINE AND DIAGNOSIS

Oral medicine is the area of special competence in dentistry concerned mainly with diagnosis, investigations and non-surgical management of diseases involving the oral & perioral structures as well as medically compromised patients. The subject of Oral Medicine at the Muhammad Dental College is designed to provide extensive diagnostic and therapeutic skills for students to diagnosis and non-surgical treatment of oral and perioral diseases, and management of systemic diseases that have a significant impact on the oral health.



<b>FACULTY IN THE DEPARTMENT OF ORAL MEDICINE AND DIAGNOSIS</b>		
<b>Name</b>	<b>Designation</b>	<b>Qualification</b>
Dr Muhammad Aqeel Aslam	<b>Chairman/ Professor</b>	<b>BDS, MFDS, RCS-Ed, CHPE</b>
Dr Sajid Ali	Assistant Professor	BDS, M.Sc, CHPE
Dr Narmeen Irfan	Registrar	BDS
Dr Asma Anwer	Registrar	BDS
Dr Rana Mohammad Ashfaque	Registrar	BDS
<b>FACULTY IN THE DEPARTMENT OF ORAL RADIOLOGY</b>		
Dr Fatima Haque	Registrar	MBBS

## DEPARTMENT OF COMMUNITY AND PREVENTIVE DENTISTRY

Community/Preventive dentistry is the dynamic field of dentistry which provides basic & advanced health knowledge to individuals and groups of people, the prevention of oral/dental diseases & awareness of oral hygiene in the population. Community Dentistry is a basic science subject taught in the second professional year BDS. The main purpose of the subject is to achieve good oral hygiene & health awareness in public through organized community efforts.

This course aims to stimulate the interest and encourage a questioning approach to community dental health issues and their relationship to clinical practice. The curriculum provides the student with broad knowledge and practical experience in the philosophy and basis of the dental public health primary health care approach, an introduction to epidemiology of oral diseases as it relates to dental research, behavioral sciences, biostatistics, and oral health services.

The subject is essential to the practice of dentistry as it promotes understanding of the sociology of oral health, oral health promotion and provision of oral health care, and puts it in the context within society and seeks to answer questions at a population level.



### FACULTY IN THE DEPARTMENT OF COMMUNITY & PREVENTIVE DENTISTRY

Name	Designation	Qualification
Dr Faryal Manzoor	Chairman/Associate Professor	BDS, M.Sc., CHPE
Dr Muhammad Ali Panhwar	Assistant Professor	BDS, M.Sc.
Dr Rehmatullah Kandhro	Senior Lecturer	BDS, M.Sc, CHPE
Dr Doha Rashid Rajar	Lecturer	BDS, CHPE
Dr Sandeep	Lecturer	BDS

## DEPARTMENT OF OPERATIVE DENTISTRY

It is the branch of dentistry concerned with the diagnosis, prevention, and treatment of diseases of the tooth structure, including the repair or restoration of defective teeth. It also includes the care and treatment of children's teeth.

The objective of this session is to give basic knowledge of operative instruments, dental terms, principles of cavity preparations, and fundamentals of tooth restorations. The skills with a handpiece are mainly accomplished through the use of patient simulation approaches. The new dentist must be competent at assessing patient risk for caries and implementing caries prevention strategies and removing or treating carious tooth tissue using techniques that maintain pulp vitality and restore the tooth to form, function and aesthetics with appropriate materials, preventing hard tissue disease and promoting soft tissue health. The development and practice of these skills using a handpiece (dental drill) begins at orientation and continues throughout the academic year.

FACULTY IN THE DEPARTMENT OF OPERATIVE DENTISTRY		
Name	Designation	Qualification
Dr Asadullah Khan Tareen	Chairman/Professor	<b>BDS, M.Sc. (Conservative Dentistry)</b>
Dr Shuja Aslam	Assistant Professor	BDS, FCPS
Dr Mohsin Ali Deeraj	Assistant Professor	BDS, FCPS
Dr Saima	Registrar	BDS, FCPS (Trained)
Dr Asma Kauser	Registrar	BDS, FCPS (Trained)
Dr Priyanka	Registrar	BDS
Dr Moon Irum	Registrar	BDS, FCPS (trained)

**Learning Outcomes:** After completing the course, the student should be familiar with the fundamental principles of cavity preparation, plastic filling materials, and the restoration of teeth. Students will be given opportunities to practice manual skills on acrylic teeth and thereby prepare for the clinical work on a patient.

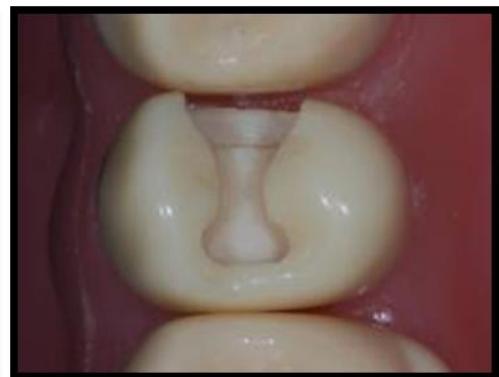
**Knowledge:** The student should be able to:

- Make a diagnosis of dental caries, NCCL, & Cracked tooth
- Define the principles of cavity preparations for the currently available restorative materials.
- Use of hand instruments and rotating instruments
- Handling of the dental materials used during the course
- Describe the physical characteristics of the currently used adhesive and restorative materials.
- List various techniques used to restore different cavity preparations.

**Skills:** At the end of this course, the student should be able to:

- Demonstrate patient-operator positioning
- Demonstrate different restorative dentistry techniques.
- Prepare Different cavity designs for both amalgam and tooth colored restorations.
- Manipulate different bases and liners.

**Attitudes:** Through training, the student is expected to have acquired a positive and self-critical attitude towards technical quality and demonstrate good time management skills during practical sessions.



## DEPARTMENT OF PROSTHODONTICS

Prosthetic dentistry is the branch of dentistry about the restoration and maintenance of oral functions, comfort, appearance, and health of the patient by restoration of teeth and/or replacement of the missing structures with removable and fixed dental prosthesis.

The department caters to patients through the provision of removable complete and partial denture prosthesis; fixed prosthesis, maxillofacial prosthesis, and temporomandibular disorders management.



### FACULTIES OF SCIENCE OF PROSTHODONTICS

Name	Designation	Qualification
Dr Atif Jawad	Chairman /Professor	BDS, FCPS
Dr Uzma Bashir	Associate Professor	BDS, M.Sc.
Dr Shagufta	Registrar	BDS, M.Sc (FCPS)
Dr Champa Kumari	Registrar	BDS, (FCPS)
Dr Rehan	Registrar	BDS

Oral Surgery is a specialty that deals with the treatment and management of pathologies of the jaws and mouth that require surgical intervention.

Although the surgical removal of teeth is the most common procedure performed by oral surgeons, there is a broad scope to the specialty. This includes the management of hard and soft tissue pathology, oral infections, dentoalveolar trauma and orofacial pain along with provision of surgery to support orthodontics and insertion of Osseointegrated implants.



<b>FACULTY IN THE DEPARTMENT OF ORAL &amp; MAXILLOFACIAL SURGERY</b>		
<b>Name</b>	<b>Designation</b>	<b>Qualification</b>
Dr Qadeer-UL-Hassan	<b>Chairman/ Professor</b>	<b>BDS, MCPS</b>
Dr Maya Madhuri	Assistant Professor	BDS, FCPS
Dr Ali Raza Zia	Assistant Professor	BDS, FCPS
Dr Farzana Lakho	Sr Registrar	BDS, FCPS
Dr Ameer Hamza	Registrar	BDS, FCPS
Dr Anil Kumar	Registrar	BDS
Dr Faryal Rashid	Registrar	BDS

## DEPARTMENT OF GENERAL MEDICINE

The Department of General Medicine contains the following facilities, and students will be taught in detail about the relevant subjects: Cardiology, Infectious diseases, Gastroenterology, Hepatology, Nephrology, Pulmonology, Rheumatology, Hematology, Dermatology, Psychiatry.



### FACULTY IN THE DEPARTMENT OF GENERAL MEDICINE

Name	Designation	Qualification
Prof Dr Nadeem Memon	Professor	<b>MBBS, FCPS</b>
Dr Shabnum Rani		<b>MBBS, FCPS</b>
Dr Atif Ali	Registrar	BDS

## DEPARTMENT OF GENERAL SURGERY

The Department of General Surgery contains the following facilities and students will be taught in detail about the relevant subjects: Neurosurgery, Urology, Orthopedic surgery, Plastic surgery, Surgical ICU, Burn unit.



FACULTY IN THE DEPARTMENT OF GENERAL SURGERY		
Name	Designation	Qualification
Dr Jamshed Bashir	Chairman/Associate Professor	MBBS, M.S
Dr Siara Atif	Lecturer	MBBS

**PROGRAM INTENDED LEARNING OUTCOMES OF VARIOUS MODULES/SUBJECTS**

**MODULE I: ORAL MEDICINE, ORAL DIAGNOSIS, AND ORAL RADIOLOGY**

**COURSE DESCRIPTION**

To train students in diagnosing and managing oral diseases, conducting comprehensive clinical evaluations, and effectively interpreting radiographs. The course aims to enhance understanding of the interplay between oral and systemic health, preparing students for clinical decision-making and patient management in diverse healthcare settings.

S#	Topics	Learning Objectives	Teaching Strategies	Teacher Name	No of Lectures=
<b>SECTION 1: ORAL DIAGNOSIS</b>					

	<b>Introduction</b>	<ul style="list-style-type: none"> <li>➤ Definition &amp; scope</li> <li>➤ Role of oral diagnosis in dental practice</li> </ul>			
	<b>Patient Evaluation &amp; Diagnosis</b>	<ul style="list-style-type: none"> <li>➤ History Taking <ul style="list-style-type: none"> <li>• Chief complaint</li> <li>• History of present illness</li> <li>• Medical and dental history</li> <li>• Family and social history</li> </ul> </li> <li>➤ Clinical Examination <ul style="list-style-type: none"> <li>• Extraoral Examination</li> <li>• Intraoral Examination</li> <li>• Cranial Nerve V &amp; VII</li> </ul> </li> <li>➤ Differential Diagnosis</li> <li>➤ Definitive Diagnosis</li> </ul>	Lecture & Clinical Demo	Prof Aqeel Aslam, Dr Sajid, Dr Asma, Dr Narmeen	06

**SECTION 1: ORAL MEDICINE**

**ORAL ULCERATIVE LESIONS**

	<b>Classification</b>	<ul style="list-style-type: none"> <li>➤ Classification of oral ulcerative lesions based on etiology</li> </ul>			
	<b>Traumatic Ulceration</b>	<ul style="list-style-type: none"> <li>➤ Discuss the cause &amp; clinical features of the Traumatic ulcers.</li> <li>➤ Investigations are available for the diagnosis of Traumatic ulcers.</li> <li>➤ Common pharmacological treatment options for the management of Traumatic ulcers</li> </ul>	Lecture	Dr Sajid, Dr Hajra	01
	<b>Recurrent Aphthous stomatitis &amp; Bechet's Disease</b>	<ul style="list-style-type: none"> <li>➤ Etiological &amp; clinical features.</li> <li>➤ Investigations available for Diagnosis.</li> <li>➤ Common pharmacological treatment options</li> </ul>			01

	<b>Vesiculo-bullous conditions</b>	<ul style="list-style-type: none"> <li>➤ Clinical features of vesiculo-bullous conditions affecting the oral cavity</li> <li>➤ Investigations available for the diagnosis of vesiculobullous conditions.</li> <li>➤ Common pharmacological treatment options for the management of vesiculobullous conditions</li> </ul>		Dr Sajid, Dr Hajra	02
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#### ORAL SOFT TISSUE LESIONS

	<b>White lesions</b>	<ul style="list-style-type: none"> <li>➤ Classify white lesions of the oral cavity</li> <li>➤ Differentiate white lesions based on their etiology, history, and clinical features</li> <li>➤ Management options for persistent, unresolving white lesions.</li> </ul>	Lecture	Dr Sajid, Dr Asma	01
	<b>Red lesions</b>	<ul style="list-style-type: none"> <li>➤ Classify red lesions of the oral cavity</li> <li>➤ Differentiate red lesions based on their etiology, history and clinical features</li> <li>➤ Management options of persistent, unresolving red lesions.</li> </ul>			01
	<b>Pigmented lesions</b>	<ul style="list-style-type: none"> <li>➤ Classify pigmented lesions of the oral cavity</li> <li>➤ Differentiate between malignant melanoma and other pigmented lesions of the oral cavity</li> <li>➤ Management of malignant melanoma</li> </ul>			01
	<b>Premalignant lesions and conditions</b>	<ul style="list-style-type: none"> <li>➤ Differentiate between premalignant lesions and conditions</li> <li>➤ Risk factors for malignant changes in oral premalignant lesions/conditions</li> <li>➤ Describe the etiological &amp; clinical features.</li> </ul>	Lecture	Dr Sajid, Dr Asma	02
	<b>Oral Cancer &amp; TNM Classification</b>	<ul style="list-style-type: none"> <li>➤ Prevention and early detection of oral cancer</li> <li>➤ Describe the TNM classification of oral Squamous cell carcinoma along with staging for prognosis.</li> </ul>			02

#### ORAL INFECTIONS

	<b>Bacterial Infections</b>	<ul style="list-style-type: none"> <li>➤ Discuss the etiology, clinical manifestation, signs, symptoms and oral findings of bacterial infections of the orofacial region <ul style="list-style-type: none"> <li>● Tuberculosis</li> <li>● Actinomycosis</li> </ul> </li> </ul>	Lecture, CBL	Prof Aqeel Aslam, Dr Sajid	
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		<ul style="list-style-type: none"> <li>• Syphilis</li> <li>➤ Investigations required to reach a diagnosis</li> <li>➤ Management of patients presenting with bacterial infections at Dental OPD</li> </ul>		01
	Viral infections	<ul style="list-style-type: none"> <li>➤ Discuss the etiology, clinical manifestation, signs, symptoms and oral findings of viral infections of the orofacial region <ul style="list-style-type: none"> <li>• Herpes Simplex Virus (Primary herpetic gingivostomatitis, Recurrent herpes labialis)</li> <li>• Varicella Zoster Virus (Herpes zoster (shingles))</li> <li>• Epstein Barr Virus (Oral hairy leukoplakia, Infectious mononucleosis)</li> <li>• Cytomegalovirus (Hand, foot, and mouth disease, herpangina)</li> </ul> </li> <li>➤ Management of patients presenting with viral infections at Dental OPD</li> </ul>		01
	Fungal infections	<ul style="list-style-type: none"> <li>➤ Classification of Fungal infections</li> <li>➤ Discuss etiology, pathogenesis, signs, symptoms and clinical features of fungal infections of the orofacial region <ul style="list-style-type: none"> <li>• Oral Candidiasis</li> <li>• Histoplasmosis</li> <li>• Blastomycosis</li> <li>• Cryptococcosis</li> <li>• Mucormycosis</li> <li>• Aspergillosis</li> </ul> </li> <li>➤ Investigations required for their diagnosis</li> <li>➤ Management of patients presenting with fungal infections at Dental OPD</li> </ul>		01
<b>OROFACIAL PAIN AND FACIAL PALSY</b>				
	Facial pain & neurological Disturbances	<ul style="list-style-type: none"> <li>➤ Classification of orofacial pain <ul style="list-style-type: none"> <li>• Neuropathic Pain (Trigeminal neuralgia, Glossopharyngeal neuralgia, post-herpetic neuralgia, Ramsay hunt syndrome)</li> <li>• Musculoskeletal Pain (Myofascial pain dysfunction syndrome, Chronic facial pain)</li> <li>• Idiopathic Pain (Atypical facial pain, Burning mouth syndrome)</li> </ul> </li> </ul>	Lecture, CBL, Tutorial	Prof Aqeel Aslam, Dr Sajid
				02

		<ul style="list-style-type: none"> <li>• Vascular Pain (Migraine, Cluster headache, Temporal arteritis)</li> </ul> <p>➤ Describe the Etiological factors, clinical features, diagnosis and management (pharmacological, non-pharmacological and interventional)</p>			
	<b>Facial Palsy</b>	<ul style="list-style-type: none"> <li>• List the causes of facial palsy</li> <li>• Diagnosis of bell's palsy in patients presenting to dental clinic</li> <li>• Management of patients with bell's palsy</li> </ul>			01

#### SALIVARY GLAND DISORDERS

	<b>Classification and Diagnosis</b>	<ul style="list-style-type: none"> <li>➤ Classification of salivary Gland Diseases.</li> <li>➤ Diagnostic modalities for salivary gland disorders</li> </ul>	Lecture, CBL, Tutorial	Dr Narmeen, Dr Rana	01
	<b>Obstructive Conditions</b>	<ul style="list-style-type: none"> <li>➤ Sialolithiasis (Diagnosis, causes, clinical features and management)</li> </ul>			
	<b>Extravasation and Retention Conditions</b>	<ul style="list-style-type: none"> <li>➤ Mucocele and Ranula (Etiology, clinical presentations and treatment of mucocele and ranula)</li> </ul>		Prof Aqeel Aslam, Dr Sajid, Dr Narmeen	01
	<b>Infections (Sialadenitis)</b>	<ul style="list-style-type: none"> <li>➤ Clinical features of bacterial and viral sialadenitis.</li> <li>➤ Management of patients presenting with sialadenitis</li> </ul>			

#### TEMPOROMANDIBULAR JOINT DISORDERS

	<b>TMJ Disorders</b>	<ul style="list-style-type: none"> <li>➤ Classify TMJ Disorders.</li> <li>➤ Discuss common signs and symptoms associated with TMJ disorders</li> <li>➤ Discuss current investigations available for the evaluation of TMJ disorders</li> </ul>	Lecture, CBL, Tutorial	Dr Sajid, Dr Hajra	02
	<b>Treatment</b>	<ul style="list-style-type: none"> <li>➤ List common Conservative &amp; specialist management of TMJ Disorders.</li> </ul>			

#### ORAL CONSIDERATION IN SYSTEMIC DISEASES

	<b>Cardiovascular diseases</b>	<ul style="list-style-type: none"> <li>➤ Discuss clinical considerations for dental management of patients <ul style="list-style-type: none"> <li>• with cardiovascular diseases</li> <li>• on warfarin therapy</li> <li>• on antiplatelet medication</li> </ul> </li> <li>➤ Describe current guidelines for antibiotic prophylaxis for infective endocarditis</li> <li>➤ Discuss oral manifestations of antihypertensive medication</li> </ul>	Lecture, CBL, Tutorial	Prof Aqeel Aslam, Dr Rana, Dr Narmeen	01
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	<b>Respiratory diseases</b>	<ul style="list-style-type: none"> <li>➤ Oral health consideration in upper airway diseases</li> <li>➤ Discuss the management of an asthmatic and chronic obstructive pulmonary disease patient.</li> </ul>			01
	<b>Gastrointestinal diseases</b>	<ul style="list-style-type: none"> <li>➤ Discuss oral manifestations of GI diseases: <ul style="list-style-type: none"> <li>• Crohn's disease,</li> <li>• Ulcerative colitis,</li> <li>• Orofacial granulomatosis,</li> <li>• Coeliac disease,</li> <li>• Hepatitis B and C</li> </ul> </li> <li>➤ Discuss considerations for dental management of a patient with Hepatitis B and C</li> </ul>		Dr Rana, Dr Narmeen, Dr Sajid	01
	<b>Renal diseases</b>	<ul style="list-style-type: none"> <li>➤ Discuss oral manifestations of renal diseases</li> <li>➤ Discuss considerations for dental management of a patient with renal disease</li> </ul>			01
	<b>Endocrine Disorders</b>	<ul style="list-style-type: none"> <li>➤ Discuss the oral manifestation and management of different endocrine disorders</li> </ul>			01
	<b>Hematological diseases</b>	<ul style="list-style-type: none"> <li>➤ Discuss oral manifestations of hematological diseases: <ul style="list-style-type: none"> <li>• Anaemia</li> <li>• Leukaemia</li> <li>• Lymphoma</li> </ul> </li> <li>➤ Discuss considerations for dental management of a patient with hematological disease</li> </ul>		Dr Rana, Dr Sajid	01
	<b>Malnutrition</b>	<ul style="list-style-type: none"> <li>➤ Oral manifestation associated with Malnutrition <ul style="list-style-type: none"> <li>• Deficiencies &amp; Oral Symptoms</li> <li>• Epidemiology</li> <li>• Preventive strategies</li> </ul> </li> </ul>		Dr Hjra	01

### SECTION 3: ORAL RADIOLOGY

	<b>Radiation Physics, Characteristics &amp; Quality Assurance</b>	<ul style="list-style-type: none"> <li>➤ Concepts of ionization radiation</li> <li>➤ Production of X rays &amp; its types</li> <li>➤ X ray beam Quality &amp; intensity</li> <li>➤ Radiographic visual characteristics &amp; exposure factors</li> </ul>		Dr Fatima	02
	<b>Radiation Biology, Protection &amp;</b>	<ul style="list-style-type: none"> <li>➤ Radiation injury &amp; its effects</li> <li>➤ Protective measures for patients &amp; X ray personnel</li> <li>➤ Radiation risks &amp; safety principles</li> </ul>			01

	<b>Infection Control</b>	➤ Infection control & guidelines			
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<b>ORAL MEDICINE</b> <b>PRINCIPLES OF INVESTIGATION &amp; DIAGNOSIS</b>		
<b>S. No</b>	<b>Topic</b>	<b>Learning Objectives</b>
<b>1</b>	<b>History Taking</b>	<ul style="list-style-type: none"> <li>• Record a comprehensive history.</li> <li>• Discuss the significance of each component of history, e.g. importance of recording the presenting complaint in the patient's own words, impact of an underlying dental condition on the patients' oral health management</li> </ul>
<b>2</b>	<b>Investigations</b>	<ul style="list-style-type: none"> <li>• Perform General Physical, Extraoral and Intraoral examination: <ul style="list-style-type: none"> <li>➤ TMJ and muscles of mastication;</li> <li>➤ Cervical lymph nodes;</li> <li>• Cranial nerve examination, with emphasis on CN- V and VII.</li> <li>• Interpret findings seen on the following investigations: <ul style="list-style-type: none"> <li>➤ Haematological;</li> <li>➤ Radiological;</li> <li>➤ Histological;</li> </ul> </li> </ul> </li> </ul> <p>Specialized imaging, e.g</p> <ul style="list-style-type: none"> <li>➤ Sialography,</li> <li>➤ CT scan,</li> <li>➤ MRI, Radioisotope scan;</li> <li>➤ Molecular biology;</li> <li>➤ Culture and sensitivity testing, Serology, PCR;</li> <li>➤ Immunohistochemistry.</li> </ul>
<b>3</b>	<b>Diagnosis</b>	<ul style="list-style-type: none"> <li>• Formulate differential diagnoses for common oral pathologies on the basis of <ul style="list-style-type: none"> <li>➤ Site of lesion;</li> <li>➤ Type/physical characteristics of the lesion</li> </ul> </li> </ul>
<b>4</b>	<b>Treatment planning</b>	<ul style="list-style-type: none"> <li>• Formulate treatment plans for common oral and maxillofacial pathologies presenting to the dental OPD.</li> </ul>
	<b>ORAL INFECTIONS</b>	
<b>1</b>	<b>Bacterial Infections</b>	<ul style="list-style-type: none"> <li>• Describe the signs, symptoms and clinical features of bacterial infections of the oro-facial region: <ul style="list-style-type: none"> <li>➤ Odontogenic infections</li> <li>➤ Cellulitis</li> <li>➤ Ludwig's angina;</li> <li>➤ Actinomycosis;</li> <li>➤ Syphilis.</li> </ul> </li> <li>• List the investigations required to reach a diagnosis Manage patients presenting with bacterial infections to the dental OPD.</li> </ul>

		<ul style="list-style-type: none"> <li>Justify the choice of antibiotic use in treating bacterial infections.</li> <li>List down reasons for failure of antibiotic therapy</li> </ul>
2	<b>Viral Infections</b>	<ul style="list-style-type: none"> <li>Discuss signs, symptoms and clinical features of viral infections of oro-facial region: <ul style="list-style-type: none"> <li>➤ Herpes simplex virus;</li> <li>➤ Varicella zoster virus;</li> <li>➤ Coxsackie virus;</li> <li>➤ Epstein Barr virus;</li> <li>➤ Cytomegalovirus;</li> <li>➤ Human immunodeficiency virus.</li> </ul> </li> <li>Manage patients presenting with viral infections to the dental OPD.</li> <li>Justify the choice of antiviral therapy.</li> </ul>
3	<b>Fungal Infections</b>	<ul style="list-style-type: none"> <li>Classify fungal infections.</li> <li>Manage patients presenting with fungal infections to the dental OPD.</li> <li>Discuss reasons for failure of antifungal therapy</li> <li>Discuss the signs, symptoms and clinical features of fungal</li> <li>List investigations required for diagnosis infections of the oro-facial region</li> </ul>
<b>ORAL ULCERATIVE LESION</b>		
1	<b>Classification</b>	<ul style="list-style-type: none"> <li>Classify oral ulcerative lesions on the basis of etiology</li> </ul>
2	<b>Non- vesiculobullous conditions</b>	<ul style="list-style-type: none"> <li>Discuss the clinical features of the non-vesiculobullous conditions affecting the oral cavity.</li> <li>List the investigations available for diagnosis of non-vesiculobullous conditions.</li> <li>List the common pharmacological treatment options for management of non-vesiculobullous conditions</li> </ul>
3	<b>Vesiculo- bullous ulcers conditions</b>	<ul style="list-style-type: none"> <li>Discuss the clinical features of vesiculo-bullous conditions affecting the oral cavity.</li> <li>List investigations available for diagnosis of vesiculo-bullous conditions.</li> <li>Discuss the common pharmacological treatment options for management of vesiculo-bullous conditions.</li> </ul>
<b>ORAL SOFT TISSUE LESIONS</b>		
1	<b>White Lesions</b>	<ul style="list-style-type: none"> <li>Classify white lesions of the oral cavity.</li> <li>Differentiate white lesions on the basis of their etiology, history and clinical features.</li> <li>Discuss management options of persistent, unresolving white lesions.</li> </ul>
2	<b>Red Lesions</b>	<ul style="list-style-type: none"> <li>Classify red lesions of the oral cavity.</li> <li>Differentiate red lesions on the basis of their etiology, history and clinical features.</li> <li>Discuss management options of persistent, unresolving red lesions.</li> </ul>

3	<b>Pigmented Lesions</b>	<ul style="list-style-type: none"> <li>Classify pigmented lesions of the oral cavity.</li> <li>Differentiate between malignant melanoma and other pigmented lesions of the oral cavity.</li> <li>Discuss management of malignant melanoma</li> </ul>
4	Premalignant lesions and conditions	<ul style="list-style-type: none"> <li>Differentiate between premalignant lesions and conditions.</li> <li>Discuss management of dysplastic lesions.</li> <li>List risk factors for malignant changes in oral premalignant lesions/conditions.</li> </ul>
<b>FACIAL PAIN</b>		
1	<b>Facial Pain</b>	<ul style="list-style-type: none"> <li>Describe causes of Oro-facial Pain.</li> <li>Differentiate among various presentations of facial pain based on the history and clinical examination.</li> <li>Describe clinical features, diagnosis and management of: Trigeminal neuralgia;</li> <li>Atypical facial pain; Burning mouth syndrome.</li> </ul>
2	<b>Facial Palsy</b>	<ul style="list-style-type: none"> <li>List causes of facial palsy.</li> <li>Diagnose Bell's palsy in patients presenting to the dental clinic.</li> <li>Manage patients presenting to the dental clinic with facial palsy.</li> </ul>
<b>SALIVARY GLAND DISORDERS</b>		
1	<b>Salivary Flow Obstruction</b>	<ul style="list-style-type: none"> <li>Classify salivary flow obstruction on the basis of aetiology.</li> </ul>
2	<b>Infections (Sialadenitis)</b>	<ul style="list-style-type: none"> <li>Describe the clinical features of bacterial and viral sialadenitis.</li> <li>Manage patients presenting to the dental OPD with sialadenitis</li> </ul>
<b>TEMPOROMANDIBULAR JOINT DISORDER</b>		
1	<b>Evaluation</b>	<ul style="list-style-type: none"> <li>Discuss common signs and symptoms associated with TMJ disorders.</li> <li>Discuss current investigations available for the evaluation of TMJ disorders, e.g. arthrography, CT scan, MRI.</li> </ul>
2	<b>Treatment</b>	<ul style="list-style-type: none"> <li>List common pharmacological treatment options, occupational therapy, prosthetic splint therapy, alternative dental therapy for pain.</li> </ul>
<b>SYSTEMIC DISORDERS</b>		
1	<b>Cardiovascular Diseases</b>	<ul style="list-style-type: none"> <li>Discuss clinical considerations for dental management of patients with cardiovascular diseases; on warfarin therapy; on anti-platelet medication.</li> <li>Describe current guidelines for antibiotic prophylaxis for infective endocarditis.</li> <li>Discuss oral manifestations of antihypertensive medication</li> </ul>
2	<b>Respiratory Diseases</b>	<ul style="list-style-type: none"> <li>Discuss the management of an asthmatic and chronic obstructive pulmonary disease patient.</li> <li>Discuss clinical features, investigations and treatment of Sarcoidosis</li> </ul>
		<ul style="list-style-type: none"> <li>Discuss oral manifestations of GI diseases: <ul style="list-style-type: none"> <li>➤ Crohn's disease;</li> </ul> </li> </ul>

3	<b>Gastrointestinal Diseases</b>	<ul style="list-style-type: none"> <li>➤ Ulcerative colitis;</li> <li>➤ Orofacial granulomatosis.</li> <li>➤ Coeliac disease;</li> <li>➤ Hepatitis B and C.</li> </ul> <ul style="list-style-type: none"> <li>• Discuss considerations for dental management of a patient with inflammatory bowel disease, Hepatitis B and C.</li> </ul>
4	<b>Renal Diseases</b>	<ul style="list-style-type: none"> <li>• Discuss oral manifestations of renal diseases.</li> <li>• Discuss considerations for dental management of a patient with chronic renal disease.</li> </ul>
5	<b>Haematological Diseases</b>	<ul style="list-style-type: none"> <li>• Discuss oral manifestations of haematological diseases: <ul style="list-style-type: none"> <li>➤ Anaemia;</li> <li>➤ Leukaemia;</li> <li>➤ Lymphoma.</li> </ul> </li> <li>• Discuss considerations for dental management of a patient with haematological disease.</li> </ul>
6	<b>Haemorrhagic Diseases</b>	<ul style="list-style-type: none"> <li>• Discuss oral manifestations of haemorrhagic diseases: Purpura; von Willebrand's disease; Haemophilia.</li> <li>• Discuss considerations for dental management of a patient with haemorrhagic disease.</li> </ul>
<b>MEDICAL ASPECTS OF ORAL SURGERY</b>		
1	<b>Management of Medically Compromised Patients</b>	<ul style="list-style-type: none"> <li>• Diagnose dental problems in medically compromised patient</li> <li>• How to obtain informed written consent</li> <li>• Discuss dental management of patients with compromising medical condition</li> <li>• Management of pregnant patients in dentistry</li> </ul>

	<b>MODULE I: PRINCIPLES OF ORAL SURGERY</b>	
1	<b>Sterilization</b>	<ul style="list-style-type: none"> <li>• Aseptic techniques and universal precautions</li> <li>• Techniques of instrument sterilization and disinfection</li> <li>• Maintenance of sterility</li> <li>• Operating disinfection</li> <li>• Surgical staff preparation.</li> <li>• Explain post-surgical asepsis</li> </ul>
2	<b>Incision, Flap Design and Tissue Handling</b>	<ul style="list-style-type: none"> <li>• Discuss and demonstrate incisions and flap design</li> <li>• Prevention of flap necrosis, flap dehiscence and flap tearing</li> </ul>
3	<b>Post-Operative care, Hemostasis, nutrition, and prevention of infection</b>	<ul style="list-style-type: none"> <li>• Discuss haemostasis and means of promoting wound haemostasis</li> <li>• Explain decontamination and debridement, edema control</li> <li>• Patient general health and nutrition</li> </ul>
4	<b>Wound Healing</b>	<ul style="list-style-type: none"> <li>• Discuss causes of tissue damage</li> <li>• Discuss wound repair and epithelialization</li> <li>• Explain stages of wound healing</li> <li>• Discuss surgical significance of wound healing concepts</li> <li>• Facial neuropathy of traumatic origin</li> </ul>

		<ul style="list-style-type: none"> <li>• Classification of nerve injury and discuss nerve healing.</li> </ul>
<b>EXODONTIA</b>		
1	<b>Principles of use of instruments</b>	<ul style="list-style-type: none"> <li>• Explain uses of various instruments used in oral surgery for exodontia purpose</li> <li>• Discuss the instrument tray system</li> </ul>
2	<b>No- Surgical Extraction</b>	<ul style="list-style-type: none"> <li>• Discuss indications and contraindications for removal of teeth</li> <li>• Discuss mechanical principles involved in tooth extraction</li> <li>• Principles of forceps use</li> <li>• Discuss specific techniques for removal of each tooth</li> <li>• Post extraction care of tooth socket</li> <li>• Discuss the potential side effects</li> </ul>
	<b>Surgical Extraction</b>	<ul style="list-style-type: none"> <li>• Principles of flap design, development and management</li> <li>• Design parameters of soft tissue flap</li> <li>• Types of mucoperiosteal flap</li> <li>• Principles of suturing</li> <li>• Indications, principles and techniques of surgical extraction</li> <li>• Technique for open extraction of single and multirooted teeth</li> <li>• Removal of small root tip and fragment</li> <li>• Discuss policy for leaving root fragments</li> <li>• Sequence of multiple extractions</li> </ul>
<b>BASICS OF PAIN AND ANXIETY CONTROL</b>		
	<b>Module Outcome</b>	<ul style="list-style-type: none"> <li>• The goal of the pain and anxiety control module is to help dentistry students learn how to administer and utilise local anaesthetics.</li> <li>• Knowing the pharmacology, neurophysiology, neurochemistry, and anatomy of administering local anaesthetics.</li> <li>• Aware and skilled in assessing the patient's physical and mental health before administering local anaesthetic, sedation, or having dental treatment. Knowledgeable about the difficulties, side effects, and treatment of those issues related to sedatives and local anaesthetic drugs.</li> </ul>
	<b>Course Competencies</b>	<p><b>Critical Thinking:</b></p> <ul style="list-style-type: none"> <li>• Apply biomedical science knowledge in the delivery of patient care.</li> </ul> <p><b>Communication and Interpersonal Skills</b></p> <ul style="list-style-type: none"> <li>• Apply the fundamental principles of behavioural sciences using patient-centered approaches for promoting, improving and maintaining oral health.</li> </ul> <p><b>Assessment, Diagnosis, and Treatment</b></p> <ul style="list-style-type: none"> <li>• Patient Assessment, Diagnosis, Treatment Planning and Informed Consent:</li> <li>• Provide oral health care within the scope of general dentistry to include patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent.</li> </ul> <p><b>Establishment and Maintenance of Oral Health</b></p> <ul style="list-style-type: none"> <li>• Provide oral health care within the scope of general dentistry to include local anesthesia and pain and anxiety control, including</li> </ul>

		consideration of the impact of prescribing practices and substance use disorder.
<b>BASICS OF PAIN AND ANXIETY CONTROL</b>		
S.NO	TOPICS	LEARNING OBJECTIVES
1	<b>Scope of Pain and Anxiety Control</b>	<ul style="list-style-type: none"> <li>Discuss the differences between the types of sedation / anesthesia</li> <li>Discuss the pros and cons of each method of sedation / anesthesia</li> <li>Describe the risks and benefits of each method of sedation / anesthesia</li> <li>Summarize the requirements of state law regarding the administration of local anesthesia, sedation and general anesthesia</li> <li>Discuss the legal ramifications of administration of local anesthesia, sedation and general anesthesia</li> </ul>
2	<b>Neurophysiology of anxiety / pain conduction / pain control</b>	<ul style="list-style-type: none"> <li>Discuss the desirable properties of local anesthetics</li> <li>Discuss the fundamentals of impulse generation and transmission</li> <li>Discuss the mode and site of action of local anesthetics</li> <li>Discuss the active forms of local anesthetics</li> <li>Discuss the kinetics of local anesthetic onset and duration of action.</li> </ul>
3	<b>Pharmacology of local anesthetics / vasoconstrictors</b>	<ul style="list-style-type: none"> <li>Discuss the pharmacokinetics of local anesthetics, including uptake, distribution, metabolism, and excretion</li> <li>Discuss the systemic actions of local anesthetics on the following: <ul style="list-style-type: none"> <li>Central nervous system</li> <li>Cardiovascular system</li> <li>Respiratory system</li> <li>Other miscellaneous actions</li> </ul> </li> <li>Describe the indications for using a vasoconstrictor in a local anesthetic solution. Consider the following: <ul style="list-style-type: none"> <li>Mechanism of action</li> <li>Metabolism</li> <li>Maximum dosage</li> <li>Toxic effects</li> <li>Contraindications</li> </ul> </li> <li>Discuss the following information for lidocaine, mepivacaine and bupivacaine: <ul style="list-style-type: none"> <li>Type of anesthetic, ester or amide</li> <li>Brand name(s)</li> <li>Onset and duration of action</li> <li>Metabolism, including uptake, redistribution, inactivation, and excretion</li> <li>Common concentrations used in dentistry</li> <li>Maximum dosage</li> </ul> </li> <li>Explain the two general categories of topical anesthetics</li> <li>Discuss benzocaine, lidocaine, and tetracaine topical anesthetics</li> <li>Calculate the amount of anesthetic and vasoconstrictor contained in the various types of anesthetic solutions</li> </ul>
	<b>CLINICAL APPLICATION OF LOCAL ANESTHESIA IN DENTISTRY</b>	

1	Armamentarium	<ul style="list-style-type: none"> <li>Identify the components of the breech-loading aspirating syringes, needles, and carpules.</li> <li>Discuss the problems that can occur with the syringes, needles and carpules</li> <li>Discuss the component chemicals contained within the cartridge and their function</li> <li>Explain when local anesthetic is no longer safe to administer.</li> </ul>
2	Anatomic considerations, clinical application and supplemental injection techniques	<ul style="list-style-type: none"> <li>Discuss the following types of administration of local anesthetics: <ul style="list-style-type: none"> <li>Maxillary anesthesia</li> <li>Mandibular anesthesia</li> <li>Gow-Gates</li> <li>Akinosi Vazirani</li> <li>PDL Injection</li> <li>Interosseous</li> <li>Controlled delivery devices</li> </ul> </li> </ul>
3	Local and systemic complications	<ul style="list-style-type: none"> <li>Discuss the causes, problems, prevention and management of the following local complications: <ul style="list-style-type: none"> <li>Needle breakage</li> <li>Pain on injection</li> <li>Persistent anesthesia: paresthesia</li> <li>Trismus</li> <li>Hematoma</li> <li>Infection</li> <li>Tissue sloughing</li> <li>Lip chewing</li> <li>Facial nerve paralysis</li> </ul> </li> <li>Discuss the causes, problems, prevention and management of the following systemic complications: <ul style="list-style-type: none"> <li>Local anesthetic overdose</li> <li>Epinephrine overdose</li> <li>Allergy</li> <li>Idiosyncratic reaction</li> <li>Side effects</li> </ul> </li> </ul>
<b>SEDATION IN DENTISTRY</b>		
1	Pharmacology of Sedative Agents – PO, IM, IV	<ul style="list-style-type: none"> <li>Discuss the risks, benefits and complications associated with each route of sedation</li> <li>Discuss the pharmacological properties, therapeutic effects and side effects of the each of the following sedative agents: <ul style="list-style-type: none"> <li>Benzodiazepines</li> <li>Narcotics</li> <li>Barbiturates</li> <li>Chloral hydrate</li> <li>Phenothiazines</li> <li>Phenergan</li> </ul> </li> </ul>
	Nitrous Oxide/Oxygen Sedation	<ul style="list-style-type: none"> <li>Discuss the pharmacology of nitrous oxide / oxygen sedation</li> <li>Discuss the equipment safety features</li> <li>Discuss patient preparation</li> </ul>

		<ul style="list-style-type: none"> <li>• Discuss the clinical effects</li> <li>• Discuss the potential side effects</li> </ul>
<b>• EVALUATION</b>		
	<b>Basic Injection Techniques</b>	Students must bring their own dental charts/medical history, stethoscopes, safety glasses, a sterilized syringe and dental mirror for their assigned lab. Anesthetics, topical, needles and the required supplies will be provided. Students must make an appropriate chart entry.
	<b>Review</b>	<p>Injection Videos in the document section, prior to your lab session</p> <ul style="list-style-type: none"> <li>• Chapters 5-15, Malamed (Local Anesthesia) (Armamentarium, Anatomy technique to supplement videos)</li> <li>• Chapters 2, 3, 5, 6 Malamed (Medical Emergencies) (Basic Emergency Information)</li> </ul>
	<b>Demonstrate the following injection techniques</b>	<ul style="list-style-type: none"> <li>• Anterior Superior Alveolar Nerve Injection</li> <li>• Middle Superior Alveolar Nerve Injection</li> <li>• Posterior Superior Alveolar Nerve Injection</li> <li>• Greater palatine injection</li> <li>• Inferior alveolar nerve block</li> <li>• Lingual nerve injection</li> <li>• Long buccal nerve injection</li> <li>• Mental foramen injection, mandibular anterior infiltration</li> </ul>

MODULE I: DEPARTMENT OF ORAL RADIOLOGY		
TOPIC	Learning objectives	TEACHER
<b>Introduction to dental radiology</b>	<ul style="list-style-type: none"> <li>• Describe the historical perspective of dental radiology</li> <li>• Discuss the Importance of radiology in dentistry</li> <li>• Discuss the differences between radiology and radiography</li> </ul>	Dr Fatima
<b>Radiographic equipment and imaging modalities</b>	<ul style="list-style-type: none"> <li>• Describe components of a dental x-ray machine in depth</li> <li>• Define the production of x radiation</li> <li>• Define the basic concepts related to electricity and currents</li> </ul>	Dr Fatima
<b>Clinical applications of dental radiology</b>	<ul style="list-style-type: none"> <li>• Overview of radiographic techniques and their applications</li> <li>• Describe Types of dental radiographs (periapical, bitewing, panoramic)</li> <li>• Describe basics of Intraoral and extraoral imaging techniques</li> <li>• Explain the role of radiology in treatment planning</li> </ul>	Dr Fatima
<b>Radiation biology</b>	<ul style="list-style-type: none"> <li>• Describe radiation injury</li> <li>• Discuss various effects of the radiation injury</li> </ul>	Dr Fatima
<b>Radiographic image characteristics and image processing</b>	<ul style="list-style-type: none"> <li>• Define Radiographic visual characteristics</li> <li>• Define radiographic geometric characteristics</li> <li>• Define radiographic exposure factors</li> <li>• Define factors influencing image quality</li> <li>• Ensuring image accuracy and consistency</li> <li>• Explain Film characteristics</li> </ul>	Dr Fatima

	<ul style="list-style-type: none"> <li>Identify the four naturally occurring densities visible on a conventional radiograph in order from highest to lowest density.</li> <li>Explain methods of processing</li> </ul>	
<b>Quality assurance and Quality control</b>	<ul style="list-style-type: none"> <li>Explain Routine maintenance and calibration of radiographic equipment</li> <li>Define Quality assurance protocols</li> <li>Operator competence</li> </ul>	<b>Dr Fatima</b>
<b>Infection control</b>	<ul style="list-style-type: none"> <li>Discuss basics of infection control</li> <li>Enlist the guidelines for practice in dental radiography</li> </ul>	<b>Dr Fatima</b>
<b>Legal and ethical aspects of dental radiology</b>	<ul style="list-style-type: none"> <li>Explain types of consent</li> <li>Explain informed consent for radiographic procedures</li> <li>Describe Legal responsibilities of dental professionals</li> <li>Describe Patient confidentiality and data protection in radiography</li> <li>Discuss risk management, malpractice issues and patients' records</li> </ul>	<b>Dr Fatima</b>
<b>Risks and safety</b>	<ul style="list-style-type: none"> <li>Explain protective measures for patients and dental personnel</li> <li>Describe the radiation risks</li> <li>Define radiation safety principles and guidelines</li> </ul>	<b>Dr Fatima</b>
<b>Radiation physics</b>	<ul style="list-style-type: none"> <li>Define fundamental concepts of ionizing radiation</li> <li>Define radiation units and measurements</li> <li>Describe the production of Dental X-rays</li> <li>Discuss the types of X-rays produced</li> <li>Define the definitions of X- radiation</li> <li>Define the Interactions of X- X-radiations</li> <li>Define the X-ray beam quality, quantity, and intensity</li> </ul>	<b>Dr Fatima</b>
<b>Radiographic techniques, positioning, and errors</b>	<ul style="list-style-type: none"> <li>Explain patient positioning and techniques for intraoral and extraoral radiographs in detail</li> <li>Define proper alignment and angulation for image clarity</li> <li>Explain common errors in radiographic techniques, including the exposure errors</li> <li>Describe bisecting, paralleling and other techniques</li> </ul>	<b>Dr Fatima</b>
<b>Radiographic anatomy of the oral cavity</b>	<ul style="list-style-type: none"> <li>Define normal radiographic anatomy of the teeth</li> <li>Define anatomical landmarks and structures in dental radiographs</li> <li>Describe the interpretation of tooth numbering systems</li> <li>Describe types of bone and the prominences</li> <li>Describe the spaces and depressions in bone</li> <li>Enlist the bony landmarks of the maxilla</li> <li>Enlist the bony landmarks of the mandible</li> <li>discuss the tooth structure and the supporting structures</li> <li>Describe the air space seen on panoramic Images</li> <li>Describe soft tissue seen on panoramic images</li> </ul>	<b>Dr Fatima, Dr Maya</b>
<b>Radiographic identification of materials</b>	<ul style="list-style-type: none"> <li>identify the restorations used in dentistry</li> <li>Identification of miscellaneous objects</li> <li>Identification of various materials used in dentistry</li> </ul>	<b>Dr Fatima</b>
<b>Radiography for other special populations and digital imaging</b>	<ul style="list-style-type: none"> <li>Define Radiography for geriatric patients</li> <li>Describe Radiographic considerations for medically compromised patients</li> <li>Describe radiography for patients with gag reflex</li> <li>Enlist the differences of digital imaging and conventional radiology</li> <li>Define the types of digital imaging</li> </ul>	<b>Dr Fatima, Dr Faryal, Dr Doha</b>

	<ul style="list-style-type: none"> <li>Discuss sensor preparation and sensor placement</li> <li>Discuss the advantages and disadvantages of digital imaging</li> </ul>	
<b>Oral and maxillofacial pathologies</b>	<ul style="list-style-type: none"> <li>Enlist the radiographic identification of the dental anomalies related to <ul style="list-style-type: none"> <li>Disturbance in number of teeth</li> <li>Disturbance in form of teeth</li> <li>Disturbance in the structure of the tooth structure (enamel, dentine, and cementum)</li> <li>Enlist radiology related to bone in oral pathology</li> <li>Describe radiology of odontogenic, non-odontogenic and non-epithelial cysts</li> <li>Describe radiology of odontogenic, non-odontogenic and mesenchymal odontogenic tumors</li> </ul> </li> </ul>	<b>Dr Maya</b>
<b>Endodontic radiology</b>	<ul style="list-style-type: none"> <li>Describe the radiographic evaluation of root canals and periapical regions</li> <li>Describe the diagnosis of periapical pathologies</li> </ul>	<b>Dr Shuja</b>
<b>Periodontal radiology</b>	<ul style="list-style-type: none"> <li>Understand the role of radiographs in the assessment and diagnosis of periodontal diseases.</li> <li>Identify normal periodontal anatomy and recognize signs of periodontal disease on radiographs, including bone loss, furcation involvement, and periapical lesions.</li> <li>Differentiate between various types and degrees of periodontal bone loss on radiographs.</li> <li>Interpret radiographic signs of periodontal disease progression, such as vertical and horizontal bone loss, as well as angular defects.</li> <li>Utilize radiographic measurements, such as alveolar bone height and density, to quantify periodontal disease severity.</li> <li>Recognize the limitations of radiographic assessment in periodontal disease diagnosis, including the inability to detect soft tissue changes and the need for clinical correlation.</li> <li>Formulate treatment plans based on radiographic findings, including periodontal therapy and surgical interventions.</li> </ul>	<b>Dr Tipu Sultan</b>

<b>COMMUNITY OUTREACH PROGRAMME</b>		
<b>Overview of dental informatics, basics of technology</b>	<ul style="list-style-type: none"> <li>Define dental informatics and its scope and applications in dentistry</li> <li>Identify the basic components and functions of a health information system</li> <li>Describe the benefits and challenges of using information technology in dental practice</li> </ul>	<b>Dr Muhammad Ali, Dr Rehmatullah, Dr Doha,</b>
<b>Introduction to dental informatics software EHR</b>	<ul style="list-style-type: none"> <li>Explain the concept and purpose of electronic health records (EHR) and their advantages over paper records</li> <li>Compare and contrast different types of EHR systems and their features</li> <li>Demonstrate the use of a selected EHR system for data entry, retrieval, and analysis</li> </ul>	<b>Dr Muhammad Ali, Dr Rehmatullah, Dr Doha</b>

<b>Dental terminology introduction to digital health records DHR implementation and management (DENTAL DEREc)</b>	<ul style="list-style-type: none"> <li>Recognize and use common dental terminology and coding systems for clinical documentation and billing</li> <li>Understand the principles and processes of digital health records (DHR) implementation and management</li> <li>Evaluate the quality and completeness of DHR data and identify potential errors and gaps</li> </ul>	<b>Dr Muhammad Ali, Dr Rehmatullah, Dr Doha</b>
<b>Emerging trends in dental informatics, case studies and discussions.</b> <b>Digital radiology software Intraoral scanner</b> <input type="checkbox"/> <b>CBCT overview (DROID RENDER app)</b>	<ul style="list-style-type: none"> <li>Discuss current and future trends and innovations in dental informatics, analyze and critique real- world case studies, and reflect on own learning and practice.</li> <li>Describe and use various digital radiology software tools and platforms and evaluate digital radiology images and reports.</li> <li>Explain intraoral scanners and their advantages, compare different types and brands of intraoral scanners, and operate an intraoral scanner for capturing 3D digital dental impressions.</li> <li>Define CBCT and its applications and benefits in dentistry, understand CBCT imaging and reconstruction principles and techniques, and use the DROID RENDER</li> <li>app for viewing and manipulating 3D DICOM images from CBCT scans</li> </ul>	<b>Dr Muhammad Ali, Dr Rehmatullah, Dr Doha</b>
<b>Interoperability and standards, security, and privacy in dental informatics</b>	<input type="checkbox"/> Define interoperability and standards and their importance for data exchange and integration, <input type="checkbox"/> Describe security and privacy issues and risks in dental informatics and the strategies and policies to address them, and apply ethical and legal principles and guidelines for data protection and confidentiality in dental informatics	<b>Dr Muhammad Ali, Dr Rehmatullah, Dr Doha</b>
<b>Assessment</b>		
<b>COURSE GOALS</b> <ul style="list-style-type: none"> <li>Understand the fundamental principles of dental radiography.</li> <li>Develop proficiency in the use of dental radiographic equipment and techniques.</li> <li>Recognize the indications for and limitations of various dental imaging modalities.</li> <li>Interpret dental radiographic images accurately and identify common pathologies.</li> <li>Apply principles of radiation safety and protection in dental radiography.</li> <li>Understand the legal and ethical considerations related to dental radiography practice.</li> <li>Communicate effectively with patients and colleagues regarding dental radiographic findings and treatment planning.</li> <li>Stay abreast of advancements in dental radiographic technology and techniques through continued learning and professional development.</li> </ul>		
<b>ASSESSMENT STRATEGIES:</b> <ul style="list-style-type: none"> <li>MCQs &amp; SAQs (50% weightage of each)</li> <li>Extended matching questions (EMQs)</li> <li>Structured Essay questions (SEQs)</li> <li>Long Answer Question</li> <li>Oral Examination (OSPE)</li> <li>Modified Essay Questions (MEQs)</li> <li>Problem-based Questions (PBQs)</li> <li>Best Answer Questions (BAQs)</li> </ul>		
<b>TEACHING STRATEGIES:</b> <ul style="list-style-type: none"> <li>Interactive lectures</li> <li>Practical demonstration</li> </ul>		

MODULE II: PERIODONTOLOGY		
Learning Outcomes	<ul style="list-style-type: none"> <li>Students must acquire the knowledge of oral hygiene promotion, disease prevention and management of periodontal problems.</li> <li>Students should become proficient in basic clinical skills of history taking, clinical examination, data interpretation, and basic clinical treatment of periodontal problems.</li> <li>Students must develop a sympathetic attitude towards patients and take care of patient safety.</li> <li>Students should develop a desire for self-learning and become lifelong learners.</li> <li>Able to visualize the impact of disease on the community as a whole and able to study the pathogenesis of specific disease and to plan the prevention of those.</li> <li>Students should adopt good clinical practices with knowledge of preventive, standardized care, and management of common periodontal problems.</li> <li>Students are equipped with knowledge and confidence to play a role of facilitator, supervisor and organizer in a primary health care program.</li> </ul>	
LEARNING OBJECTIVES		
Knowledge and Cognition	Skills	Attributes
<ul style="list-style-type: none"> <li>Student should be able to give description of common periodontal problems and diseases at different ages.</li> <li>Student should show an understanding of national strategies aimed for health promotion, disease prevention and community management of periodontal disease.</li> <li>Student should show understanding of importance of oral hygiene on systemic health, oral health and oral manifestation of systemic disease.</li> <li>Student should show an understanding of interaction between genetic and environmental factors in the genesis of periodontal disease.</li> <li>Student should be able to describe oral health care of</li> </ul>	<p>Students should be able to:</p> <ul style="list-style-type: none"> <li>Obtain a proper clinical history from patient.</li> <li>Perform adequate clinical examination of patient.</li> <li>Interpret clinical and laboratory investigation.</li> <li>Arrive at provisional/ definitive diagnosis regarding periodontal problems.</li> <li>Advice proper oral hygiene maintenance measures for healthy periodontium.</li> <li>Perform essential clinical procedures to treat periodontal disease.</li> </ul>	<p>To develop the right attitude to acquire knowledge and the willingness to learn newer concept; also seek the opinion from a dental specialist when required.</p>

<p>periodontium when suffering from periodontal disease along with etiological factors causing it.</p>		
<b>LEARNING OBJECTIVES DURING CLINICAL POSTINGS</b>		
<p>During Clinical posting and at the end of academic year, students must have thorough knowledge of:</p> <ul style="list-style-type: none"> <li>• Infection control</li> <li>• Periodontal instrumentation</li> <li>• Chair position, Patient position, History taking 20 cases</li> <li>• Principle of instrumentation; maintenance of instruments</li> <li>• Tissue-gingiva, periodontal ligament, cementum, alveolar bone.</li> <li>• Plaque control-both mechanical and chemical</li> <li>• Motivation of patients-oral hygiene instructions</li> <li>• Common soft and hard tissues in disease and health</li> <li>• Pathologies related to Gingiva, Periodontal ligament, Cementum and Alveolar Bone.</li> <li>• Be capable of establishing differential diagnosis for common hard and soft periodontal tissues.</li> <li>• Examination of Patients with Periodontal disease and emphasis should be given towards: <ul style="list-style-type: none"> <li>○ Gingival texture and consistency</li> <li>○ Gingival bleeding</li> <li>○ Gingival swelling (hyperplasia)</li> <li>○ Gingival recession/Muco-gingival defects</li> <li>○ Gingival pigmentation and ulceration</li> <li>○ Epidemiological evaluation/Examination methods/Index system: <ul style="list-style-type: none"> <li>▪ Plaque Index</li> <li>▪ Oral hygiene Index <ul style="list-style-type: none"> <li>• Debris index</li> <li>• Calculus index</li> </ul> </li> <li>▪ Sulcus bleeding index</li> <li>▪ Gingival index</li> <li>▪ Mucogingival index</li> <li>▪ Periodontal index</li> <li>▪ Community Periodontal Index and Treatment Needs (CPITN)</li> <li>▪ Tooth mobility Grade 1,2,3 Method</li> </ul> </li> </ul> </li> <li>• Perio Pockets Type: Gingival/Suprabone/Infrabone</li> <li>• Probing methods</li> <li>• Dental Plaque and calculus recognition</li> </ul>		

- Dental Radiographic analysis of bone loss and patterns of bone destruction
  - Purposes/General Aspects/Clinical vs Radiographic Information
- Perio disease recognition and diagnosis
- Plaque induced
- Non-plaque induced
- Conditions
- Risk Factor
- Smoking
- Importance of Supragingival plaque removal
- Importance of Instruction/motivation
- Self-performed plaque control:
  - Brushing
  - Interdental cleaning
  - Adjunctive aids
  - Side effects
- Chemical Supragingival and Subgingival plaque control:
  - Local: Vehicle for the delivery of chemical agent and drugs
  - Systemic: Toxicology, Safety and side effects
- Non-surgical therapy:
  - Detection and removal of dental calculus, halitosis control
  - Methods used for Non-surgical root surface debridement
  - Hand instruments, Sonic and ultrasonic scalar, manual and ultrasonic instrumentation
  - Implication of furcation involvement
  - Pain and discomfort following non-surgical therapy
  - Re-evaluation, Prediction of outcome and evaluation of treatment
- Surgical therapy:
  - Introduction
  - Periodontal surgical procedures
  - Techniques in Periodontal Pocket Surgical Therapy
  - Gingivectomy procedures
  - General guidelines for Periodontal Surgery/Instrument
  - Indications, Contraindications, Objectives, Local anesthesia in periodontal surgery
- Suturing techniques:
  - Periodontal dressings
  - Postoperative pain control
  - Post-surgical care
- Diagnosis /classification of periodontal disease
- Determination of prognosis and treatment plan
- Radiographic interpretation and lab diagnosis
- Principle of periodontal surgery
- Occlusion-correction & management.

- Splinting techniques
- Treatment of dental hypersensitivity
- Implants-basics
- GCF and Saliva
- Plaque and calculus
- Basic Periodontal Examination
- Lab investigations
- Systemic disease:
  - Diagnosis of Gingivitis, Periodontitis (Acute, Chronic)
  - Clinical features of Acute, Chronic
- Treatment planning protocol patient with periodontal disease and Oral manifestations of Periodontal diseases:
  - Screening for Periodontal disease
- Initial Periodontal therapy (Infection control)
- Oral hygiene motivation
  - Counseling in Periodontal Care
  - Giving advice
- Mechanical Supra-gingival plaque control, including  
Curettage/Root planning
- Surgical therapy for all above
- Gingivectomy Procedures
- Flap procedures
- Regenerative procedures (Guided Tissue Regeneration/Guided Bone Regeneration)
- Osseous surgery
- Selection of surgical technique
- Outcomes of surgical periodontal therapy
- Healing following surgical pocket therapy
- Clinical outcome of surgical access therapy in comparison to non-surgical therapy
- Treatment of Furcation involved teeth
- Treatment of Endodontic and Periodontic lesions
- Muco-gingival therapy
- Dental Implant maintenance
- Diagnosis and management of Peri-implant disease
- Antibiotics in Periodontal therapy
- Regenerative Periodontal therapy (Barrier materials)

ASSESSMENT		
Knowledge and Cognition	Skills	Attributes
Case Discussion/PBL Session/Clinical Rotation test:	Case Discussion/PBL Session/Clinical Rotation test:	Case Discussion/PBL Session/Clinical Rotation test:

*OSCE: Objective Structured Clinical Examination	*OSCE: Objective Structured Clinical Examination	*OSCE: Objective Structured Clinical Examination
	OSPE: Objective Structured Performance Evaluation	

PRACT. #	SCHEDULE OF SKILLS AND PROCEDURES	FACILITATORS
	<b>Following Skills &amp; Procedures Performed by the Students under Supervision</b>	Faculty of Periodontology
1	Cross Infection Control Protocol	
2	History Taking	
3	Basic Periodontal Examination (BPE)	
4	Periodontal Charting	
5	Instruments, Equipment, and their uses	
6	Chair Position, Patient's Position, Instruments grasping, and Finger Rests	
7	Clinical features, Diagnosis of Gingivitis. (All types and classifications), emphasis should towards <ul style="list-style-type: none"> <li>• Gingival texture &amp;consistency</li> <li>• Gingival bleeding</li> <li>• Gingival swelling(hyperplasia)</li> </ul>	
	<ul style="list-style-type: none"> <li>• Gingival recession / Muco gingival Defects</li> <li>• Gingival pigmentation and ulceration</li> </ul>	
8	Examination of Patients with Periodontal Disease- recognition and diagnosis	
9	Identification of types of Periodontal Pockets Gingival / Supra Bone / Infra Bone	
10	Periodontal Probing methods	
11	Dental Plaque and calculus recognition	
12	Dental Radiographic examination Purposes / General Aspects / Clinical VS –Radiographic information	
13	Recognition of systemic risk factors causing periodontal diseases.	

14	<p>Epidemiological evaluation / Examination methods / Index system / Grading/Scoring</p> <ul style="list-style-type: none"> <li>• Plaque Index</li> <li>• Oral Hygiene Index <ul style="list-style-type: none"> <li>• Debris Index</li> <li>• Calculus Index</li> </ul> </li> <li>• Sulcus bleeding Index</li> <li>• Gingival Index</li> <li>• Mucogingival Index /gingival recession index</li> <li>• Periodontal Index</li> <li>• Tooth mobility grading</li> <li>• Furcation involvement grading</li> </ul>	
15	<p>Initial Periodontal Therapy (Plaque Control)</p> <p>Oral Hygiene motivations</p> <ul style="list-style-type: none"> <li>• Counseling in Periodontal Care</li> <li>• Giving instructions and advise</li> </ul> <p>Self performed plaque control techniques and methods</p> <ul style="list-style-type: none"> <li>• Brushing techniques</li> <li>• Inter dental Cleaning aids and techniques</li> <li>• Adjunctive aids</li> </ul> <p>Side effects of each techniques and methods</p>	
16	<p>Chemical Supra gingival plaque control</p> <p>Local : Vehicle for the delivery of chemical agent Systemic:</p> <p>Toxicology, Safety and side effects</p>	
17	<p>Non-Surgical Periodontal Therapy:</p> <ul style="list-style-type: none"> <li>• Hand scaling</li> <li>• Sonic and Ultra sonic scaling</li> <li>• Non-surgical root surface debridement and root planning</li> <li>• Management of Pain and discomfort following Non-surgical Therapy</li> <li>• Re-evaluation, Prediction of outcome and evaluation of treatment</li> <li>• Halitosis/breath Malodor control</li> </ul>	
18	General guide lines for Periodontal Surgery / Instrument	
19	Local anesthesia in periodontal surgery – Techniques	
20	Suturing	
21	Periodontal Dressings	
22	Assessment of Clinical/radiographic outcome of surgical therapy in comparison to non-surgical therapy	

	<b>For the Following Procedures, Students' Status will remain as Observer</b>	
23	Techniques in Periodontal pocket Surgery - Gingivectomy, Gingivoplasty	
24	Surgical Treatment of Furcation involved teeth	
25	Surgical management of Endodontics and Periodontics lesions	
26	Muco gingival Therapy- surgical management of gingival recession	
27	Treatment of Peri-Implant Lesions	
28	Regenerative periodontal therapy (Barrier materials)	

<b>CURRICULUM LEARNING OUTCOMES, OBJECTIVES, ASSESSMENT TOOLS</b>				
<b>DEPARTMENT OF PERIODONTOLOGY</b>				
<b>S #</b>	<b>TOPICS</b>	<b>Learning Outcomes</b>	<b>Learning Objectives</b>	<b>Assessment tools</b>
1	Cross contamination and cross infection control protocol	<ul style="list-style-type: none"> <li>-Understand the concept of cross contamination.</li> <li>- Identify common sources and pathways of cross contamination.</li> <li>- Acquire knowledge of effective cleaning, disinfection, and sterilization procedures.</li> </ul>	<ul style="list-style-type: none"> <li>- Describe appropriate control measures to prevent cross contamination in healthcare</li> <li>- Describe infection control protocols to ensure a safe and hygienic environment.</li> </ul>	BCQS, OSCE, OSPE
2	The Anatomy, structure and functions of The Periodontal Tissues/ The normal periodontium	<ul style="list-style-type: none"> <li>-Outline the main components of the periodontium.</li> <li>- Recognize the functional roles of each part of the periodontium in supporting tooth stability and overall oral health.</li> <li>-Recognize the structural changes in</li> </ul>	<ul style="list-style-type: none"> <li>- Identify the key components; the gingiva, periodontal ligament, cementum, and alveolar bone.</li> <li>- Understand the structural and functional roles of each element within the periodontium; GCF, Saliva, Blood supply, nerve supply,</li> </ul>	BCQs

		<p>periodontal tissues associated with different stages of periodontal disease.</p> <p>- Outline the knowledge of periodontal anatomy to assess oral health and contribute to treatment planning in a dental or clinical setting.</p>	<p>lymphatic drainage.</p> <p>- Describe the anatomical distinctions between healthy periodontal tissues and those affected by periodontal disease, age changes in the periodontium.</p> <p>- Describe the application of knowledge of periodontal anatomy to oral health assessments and treatment planning.</p>	
3	The Anatomy, structure and functions of The Periodontal Tissues/ The normal periodontium	Mentioned above	Mentioned above	
4	Oral Bio film and Calculus	<p>- Describe the stages of dental calculus development and the consequences of its accumulation.</p> <p>- Outline the knowledge of oral biofilm and calculus in disease prevention strategies.</p>	<p>- Recognize the formation and composition of oral biofilm and its role in dental diseases.</p> <p>- Factors influencing biofilm formation and its relationship to oral health.</p>	BCQS, OSCE, OSPE
5	Periodontal microorganism	<p>- Outline the major microorganisms in periodontal diseases and host inflammatory response after bacterial interactions.</p> <p>- Outline the mechanisms by which periodontal</p>	<p>-Identify key periodontal microorganisms, their colonies and role in the pathogenesis of periodontal diseases.</p> <p>- Describe how these microorganisms contribute to the</p>	BCQS, OSCE, OSPE

		<p>microorganisms can evade host defenses and cause tissue destruction.</p>	<p>pathogenesis of periodontal diseases and the mechanisms involved.</p> <ul style="list-style-type: none"> <li>- Describe host response against bacterial invasion.</li> <li>- Describe the application of knowledge of periodontal microorganisms to develop effective treatment and prevention strategies for periodontal diseases.</li> </ul>	
6	Pathogenesis of Plaque associated Periodontal disease	<ul style="list-style-type: none"> <li>- Identify and describe the key factors contributing to the pathogenesis of periodontal diseases, including microbial involvement and host response.</li> </ul>	<ul style="list-style-type: none"> <li>- Explain the sequential stages of plaque-associated periodontal disease, from initial inflammation to advanced tissue destruction.</li> <li>- Describes the knowledge and skills to develop effective preventive and treatment strategies for plaque-associated periodontal diseases, thereby promoting better oral health.</li> </ul>	BCQS, OSCE, OSPE
7	Etiology and susceptibility in Periodontal Disease - Local risk factors.	<ul style="list-style-type: none"> <li>-To assess an individual's susceptibility to periodontal disease based on local risk factors, and</li> </ul>	<ul style="list-style-type: none"> <li>- Identify local risk factors that contribute to the development and progression of periodontal</li> </ul>	BCQS, OSCE, OSPE

		<p>understand how these factors influence periodontal health.</p>	<p>disease, including factors related to dental anatomy, oral hygiene, and lifestyle habits.</p> <ul style="list-style-type: none"> <li>- Outline the knowledge and skills to recommend appropriate preventive and therapeutic measures to manage local risk factors in order to improve periodontal health and prevent disease progression</li> </ul>	
8	Systemic risk factors for periodontal diseases	<ul style="list-style-type: none"> <li>- Recognize the complex interactions between systemic health and periodontal conditions, including the bidirectional relationships and potential mechanisms involved.</li> </ul>	<ul style="list-style-type: none"> <li>-Describe various systemic risk factors, such as diabetes, cardiovascular disease, and immunological conditions, and their influence on the development and progression of periodontal diseases.</li> </ul>	BCQS, OSCE, OSPE
9	Instruments use in periodontal therapy-classification	<ul style="list-style-type: none"> <li>-Classify and categorization of instruments used in periodontal therapy, including hand instruments, ultrasonic devices, and</li> </ul>	<ul style="list-style-type: none"> <li>- Identify the specific functions and applications of different periodontal instruments, such as scalers, curettes, and periodontal probes.</li> </ul>	BCQs OSPE/OSCE

		rotary instruments. -	- Develop the ability to select appropriate instruments based on the patient's periodontal condition and treatment goals.	
10	Instruments use in periodontal therapy-handling, grasping, finger rests, maintenance	- Enlist the ability to effectively grasp and handle periodontal instruments, ensuring precise control and minimal patient discomfort during treatment. - Knowledge and skills in maintaining periodontal instruments, including sharpening, sterilization, and routine care to prolong their lifespan and maintain optimal performance.	-Describe various finger rest techniques and their applications, allowing for steady hand support and improved instrument maneuverability in different treatment scenarios.  - Describe the protocols for instrument sterilization and infection control to ensure the safety of both patients and dental healthcare providers during periodontal therapy procedures.	BCQS, OSCE, OSPE
11	Chair position, patient and dentist position-ergonomics	- Recognize proper patient positioning in the dental chair for efficient examination and treatment, while considering patient comfort and safety. -Recognize how effective chair, patient, and dentist positioning can contribute to the efficiency of dental procedures and the	- Describe how to adjust and maintain the dental chair for the comfort of both patients and dental professionals, reducing the risk of musculoskeletal strain and discomfort.	BCQS, OSCE, OSPE

		delivery of high-quality patient care.		
12	Identification and diagnosis of periodontal diseases in general dental practice- Basic Periodontal Examination (BPE)	<ul style="list-style-type: none"> <li>- Classify the severity of periodontal diseases based on BPE scores and assess the appropriate treatment approach.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify the signs and symptoms of periodontal diseases, including gingivitis and periodontitis, using BPE and other diagnostic tools.</li> <li>- Determine patients comprehensive treatment plans, integrating BPE findings with other clinical assessments.</li> </ul>	BCQS, OSCE, OSPE
13	Record of periodontal Examination/periodontal charting	<ul style="list-style-type: none"> <li>- Developing the ability to accurately and comprehensively chart periodontal conditions, including pocket depths, clinical attachment levels, bleeding points, and other relevant data.</li> <li>- Understand the importance of periodontal charting for tracking disease progression and evaluating the effectiveness of periodontal therapy over time.</li> </ul>	<ul style="list-style-type: none"> <li>- Describe how to make periodontal diagnoses based on charting findings, distinguishing between various stages and types of periodontal diseases.</li> <li>- How to utilize periodontal charting data to formulate evidence-based treatment plans that address individual patient needs and the severity of periodontal conditions.</li> </ul>	BCQs OSPE/OSCE
14	Radiographic aids in the diagnosis of periodontal disease	<ul style="list-style-type: none"> <li>-Develop the skill to accurately interpret dental radiographs, including intraoral and panoramic images, for the diagnosis of periodontal conditions.</li> </ul>	<ul style="list-style-type: none"> <li>- How to use radiographic aids to assess bone loss, furcation involvement, and other periodontal disease indicators in a patient's oral health.</li> <li>- Identify radiographic</li> </ul>	BCQs

		<ul style="list-style-type: none"> <li>- Utilize radiographic findings to support treatment planning decisions, including the choice of surgical procedures and therapeutic interventions in periodontal therapy.</li> </ul>	<p>anomalies and pathologies associated with periodontal diseases.</p>	
15	<p>Initial Periodontal Therapy/non-surgical periodontal therapy in general dental practice-Oral hygiene Motivations for plaque control and periodontal care.</p>	<ul style="list-style-type: none"> <li>- Develop skills in employing strategies to encourage patients to adhere to plaque control measures and engage in periodontal care.</li> <li>- Understand the role of oral hygiene motivation in promoting overall periodontal health and contribute to long-term disease management and prevention.</li> </ul>	<ul style="list-style-type: none"> <li>- Teach patients how to perform proper toothbrushing, flossing, and other oral hygiene techniques to maintain periodontal health.</li> </ul>	BCQS, OSCE, OSPE
16	<p>Initial Periodontal Therapy Mechanical and chemical Supragingival plaque control.</p>	<ul style="list-style-type: none"> <li>-Develop proficiency in the mechanical removal of supragingival plaque using instruments such as toothbrushes and dental scalers.</li> <li>- Understand the use of chemical agents, such as mouthwash and antimicrobial rinses, in supragingival</li> </ul>	<ul style="list-style-type: none"> <li>- Identify the impact of mechanical and chemical plaque control on supragingival health, leading to improved overall oral hygiene and periodontal wellbeing.</li> <li>- How to educate patients on the proper use of mechanical and</li> </ul>	BCQs SEQs

		plaque control and their role in oral hygiene.	chemical plaque control methods to maintain oral health.	
17	Sonic and ultrasonic scaling techniques and methods	<ul style="list-style-type: none"> <li>-Develop proficiency in operating and handling sonic and ultrasonic devices used in dental scaling procedures.</li> </ul>	<ul style="list-style-type: none"> <li>- How to use sonic and ultrasonic scalers to efficiently and effectively remove calculus deposits and biofilm from tooth surfaces and below the gumline.</li> </ul>	BCQs
19	Subgingival scaling, root planning and curettage	<ul style="list-style-type: none"> <li>-Develop proficiency in subgingival scaling techniques, which involve the removal of calculus and biofilm from below the gumline.</li> <li>- Perform root planing effectively, smoothing root surfaces to promote reattachment of periodontal tissues and prevent disease progression.</li> </ul>	<ul style="list-style-type: none"> <li>- How to sequence subgingival scaling, root planning, and curettage procedures within comprehensive periodontal therapy treatment plans.</li> </ul>	BCQs
20	Local delivery antibiotics	<ul style="list-style-type: none"> <li>- Recognize effective methods of delivering antibiotics to targeted periodontal sites, such as subgingival pockets, to enhance their therapeutic efficacy.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify the specific indications for local delivery antibiotics and recognize contraindications, ensuring safe and appropriate treatment decisions.</li> <li>- How to Integrate local delivery of antibiotics into comprehensive periodontal therapy plans to improve clinical outcomes and</li> </ul>	BCQs

			manage disease progression.	
21	Systemic Chemotherapeutic agents	-Recognize the specific indications for systemic chemotherapeutic agents in periodontal therapy and understand contraindications to their use.	- How to integrate systemic chemotherapeutic agents into comprehensive periodontal treatment plans, considering individual patient needs and disease severity.	BCQs
22	Maintenance in Periodontal therapy	- Understand the importance of regular professional monitoring, including periodontal assessments and dental cleanings, to evaluate the effectiveness of treatment and detect early signs of disease recurrence. - Develop the ability to educate patients about proper oral hygiene practices and their crucial role in maintaining periodontal health.	- How to develop and implement effective maintenance protocols to support long-term periodontal health and prevent disease recurrence.	BCQs
23	Gingivitis – Clinical features	-Develop the ability to recognize and diagnose gingivitis based on clinical features, including visual assessment and patient symptoms.	- Identify the typical signs and symptoms of gingivitis, such as redness, swelling, bleeding, and changes in gingival texture.	BCQs OSPE/OSCE
24	Acute gingival infections	-Develop the ability to identify and diagnose acute gingival	- Identify and differentiate various types of acute gingival	BCQs OSPE/OSCE

		<p>infections based on clinical features, patient history, and symptoms.</p> <ul style="list-style-type: none"> <li>- Understand the microbial and viral etiology of acute gingival infections and the pathogenesis that leads to their development.</li> </ul>	<p>infections, including abscesses, ulcers, and herpetic lesions.</p> <ul style="list-style-type: none"> <li>- How to clinically diagnose and assess acute gingival infections, including evaluating clinical signs and symptoms.</li> </ul>	
25	Desequamative gingivitis	<ul style="list-style-type: none"> <li>- Comprehensive understanding of the underlying causes and contributing factors of desquamative gingivitis, such as autoimmune disorders and mucocutaneous diseases.</li> <li>- Develop the ability to identify desquamative gingivitis and differentiate it from other oral conditions, based on clinical presentation and patient history.</li> </ul>	<ul style="list-style-type: none"> <li>- How to distinguish between the various mucocutaneous disorders that can manifest as desquamative gingivitis, ensuring accurate diagnosis.</li> <li>- Understand the treatment options and management strategies available for desquamative gingivitis, including topical and systemic therapies to alleviate symptoms and control disease progression.</li> </ul>	
26	Gingival enlargement	<ul style="list-style-type: none"> <li>- Understand the underlying causes and contributing factors of gingival enlargement, such as medication-related factors, systemic diseases, and local irritants.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify and classify various types of gingival enlargement, including inflammatory, drug-induced, and hereditary forms, based on clinical and histological features.</li> <li>- How to differentiate between different forms of gingival</li> </ul>	BCQs OSPE/OSCE

			enlargement, ensuring accurate diagnosis and appropriate treatment planning.	
27	Gingival recession	<ul style="list-style-type: none"> <li>- Understand the underlying causes and risk factors associated with gingival recession, such as periodontal disease, aggressive toothbrushing, and anatomical factors.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify and diagnose gingival recession based on clinical examination, including assessment of recession depth and contributing factors.</li> <li>- Knowledge about treatment options and management techniques for gingival recession, including surgical procedures and non-surgical approaches like oral hygiene instruction.</li> </ul>	BCQs
28	Gingival diseases in childhood	<ul style="list-style-type: none"> <li>- Understand the underlying causes and risk factors associated with gingival diseases in children, such as poor oral hygiene, systemic conditions, and medication-related factors.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify and diagnose gingival diseases specific to childhood, including conditions like gingivitis, eruption gingivitis, and congenital gingival disorders.</li> <li>- Knowledge about the treatment options and management strategies for gingival diseases in childhood, including behavior management and age-appropriate interventions.</li> </ul>	BCQs
29	The periodontal pocket	<ul style="list-style-type: none"> <li>- Diagnostic techniques, including probing and radiographic</li> </ul>	<ul style="list-style-type: none"> <li>- identify periodontal pockets, measure pocket depths accurately, and classify</li> </ul>	OSPE/OSCE

		<p>assessment, to evaluate periodontal pockets and their impact on periodontal health.</p> <ul style="list-style-type: none"> <li>- Understand the causes and progression of periodontal pockets, including the role of bacterial biofilm and host response in their development.</li> </ul>	<p>them based on severity.</p> <ul style="list-style-type: none"> <li>- Treatment options and management strategies for periodontal pockets, including non-surgical and surgical approaches, to promote pocket reduction and periodontal health.</li> </ul>	
30	Radiographic Examination of Bone loss, pattern of Bone loss and Periodontal pockets	<ul style="list-style-type: none"> <li>- Interpret dental radiographs to identify and quantify bone loss, periodontal pockets, and the pattern of bone loss in periodontal disease.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify different patterns of bone loss, such as horizontal, vertical, and furcation involvement, and understand their significance in periodontal diagnosis and treatment planning.</li> <li>- Ability to integrate radiographic findings with clinical data to provide a comprehensive periodontal diagnosis and treatment plan.</li> </ul>	BCQs OSPE/OSCE
31	Chronic Periodontitis	<ul style="list-style-type: none"> <li>- Understand the underlying causes and the progressive nature of chronic periodontitis, including the roles of microbial biofilm and host response.</li> </ul>	<ul style="list-style-type: none"> <li>- How to diagnose chronic periodontitis and classify it based on clinical and radiographic criteria.</li> <li>- Knowledge of maintenance protocols and preventive measures to ensure long-term periodontal health and</li> </ul>	BCQs OSPE/OSCE

			<p>prevent disease recurrence.</p> <ul style="list-style-type: none"> <li>- Treatment modalities and strategies for managing chronic periodontitis, including non-surgical and surgical interventions.</li> </ul>	
32	Aggressive Periodontitis	<ul style="list-style-type: none"> <li>- Understand the specific etiological factors and risk factors associated with aggressive periodontitis, including microbial and genetic influences.</li> </ul>	<ul style="list-style-type: none"> <li>- How to diagnose aggressive periodontitis, differentiate it from other forms of periodontal disease, and classify it based on clinical and radiographic criteria.</li> <li>- Long-term management and maintenance protocols to ensure the stability of periodontal health and minimize disease recurrence.</li> </ul>	BCQs OSPE/OSCE
34	Necrotizing Periodontal disease	<ul style="list-style-type: none"> <li>- Understand the specific etiological factors and contributing factors associated with necrotizing periodontal diseases, including microbial agents, systemic conditions, and lifestyle factors.</li> </ul>	<ul style="list-style-type: none"> <li>- How to diagnose and recognize necrotizing periodontal diseases based on clinical presentation, symptoms, and risk factors.</li> <li>- Treatment approaches and interventions for managing necrotizing periodontal diseases, including</li> </ul>	BCQs

			debridement, systemic antibiotics, and supportive care.	
35	Periodontal abscess	<ul style="list-style-type: none"> <li>- Understand the specific etiological factors and risk factors associated with periodontal abscesses, including microbial pathogens and local irritants.</li> </ul>	<ul style="list-style-type: none"> <li>- How to diagnose and identify periodontal abscesses based on clinical signs and symptoms, such as localized pain, swelling, and purulent discharge.</li> <li>- Treatment strategies and management approaches for periodontal abscesses, including drainage, debridement, and antibiotic therapy when necessary.</li> </ul>	BCQs
36	Halitosis/Breath Malodor causes and management	<ul style="list-style-type: none"> <li>- Understand the various causes of halitosis, including oral and systemic factors, and learn how to diagnose the specific etiology in individual patients.</li> </ul>	<ul style="list-style-type: none"> <li>- Describe the effective oral hygiene practices and treatment approaches for managing halitosis, including proper tooth brushing, tongue cleaning, and antimicrobial rinses.</li> </ul>	BCQs
37	Periodontal diseases in female patient	<ul style="list-style-type: none"> <li>- Outline gender-specific risk factors that may predispose female patients to periodontal diseases, including hormonal changes and pregnancy, and their impact on oral health.</li> </ul>	<ul style="list-style-type: none"> <li>- Female patients on oral hygiene practices, nutrition, and lifestyle choices that promote healthy gums and overall well-being throughout various life stages.</li> <li>- How to manage periodontal treatment plans to address the unique needs and challenges faced by</li> </ul>	BCQs

			female patients, taking into account their reproductive and hormonal status..	
38	<b>EVALUATION/CLASS TEST</b>			
39	Restorative and periodontal interrelationship	- Develop an understanding of the complex interrelationship between restorative dentistry and periodontal health, including how restorative procedures can impact periodontal tissues.	- How to assess and manage the risks associated with restorative treatments on periodontal health, considering factors such as occlusion, margin placement, and material selection.	BCQs
40	Endodontics and Periodontics interrelationship	- Develop a comprehensive understanding of the interrelationship between endodontics and periodontics, including how endodontic and periodontal conditions can impact each other.	- How to diagnose and assess cases involving both endodontic and periodontal issues and develop treatment plans that address both aspects effectively.	BCQs OSPE/OSCE
41	Orthodontics and periodontics interrelationship	- Develop an understanding of the interrelationship between orthodontics and periodontics, including how orthodontic treatments can impact periodontal health. - Understand techniques and strategies to minimize complications and	- How to assess and evaluate the risks associated with orthodontic treatments on periodontal health, including factors like tooth movement and occlusion changes. - Describes collaborative treatment planning that integrates	BCQs

		adverse effects on periodontal tissues during orthodontic procedures.	orthodontic and periodontal considerations to achieve the best possible outcomes for patients.	
42	Periodontal disease as a risk for systemic disease	-Deep understanding of the bidirectional relationship between periodontal disease and systemic conditions, including the mechanisms through which periodontal health can impact overall health.	- Identify systemic diseases and conditions that are influenced by periodontal disease, such as cardiovascular disease, diabetes, and respiratory conditions. - Skills in assessing and managing the risk of systemic diseases associated with periodontal disease, including patient evaluation and preventive measures.	BCQs
43	Periodontal treatment of medically compromised patients	- Develop the ability to assess and understand the medical conditions and medications that may impact periodontal health and treatment.	- How to periodontal treatment plans to accommodate the specific needs and limitations of medically compromised patients. - Potential effects of medications on periodontal health and learn how to manage side effects and complications.	BCQs
44	Treatment of periodontal emergencies	- Develop the ability to promptly recognize and diagnose periodontal emergencies, such as	- How to provide immediate management and relief of pain or discomfort in cases of	BCQs

		<p>acute periodontal abscesses or traumatic injuries to the periodontium.</p> <ul style="list-style-type: none"> <li>- Understand the potential risks and complications associated with periodontal emergencies, including the spread of infection and tooth mobility, and learn to mitigate these risks.</li> </ul>	<p>periodontal emergencies through procedures like drainage, debridement, and antibiotic therapy.</p>	
45	General principle of periodontal surgery	<ul style="list-style-type: none"> <li>- Develop proficiency in the fundamental surgical protocols, indications, contraindications and techniques used in periodontal surgery, including flap design, tissue manipulation, and suturing.</li> </ul>	<ul style="list-style-type: none"> <li>- How to conduct thorough patient assessments, including the evaluation of periodontal health, risk factors, and the selection of appropriate surgical procedures.</li> </ul>	BCQS, OSCE, OSPE
46	Periodontal Pocket Irradiation/periodontal flap technique for pocket therapy	<ul style="list-style-type: none"> <li>- Develop proficiency in designing and elevating periodontal flaps to access and visualize the root surfaces and periodontal pockets for effective therapy.</li> </ul>	<ul style="list-style-type: none"> <li>- How to perform thorough root debridement and root surface smoothing as part of pocket therapy to remove microbial biofilm and calculus deposits.</li> <li>- Which techniques for reducing pocket depth and achieving complete pocket closure through flap surgery, enhancing periodontal health?</li> </ul>	BCQs
47	Periodontal surgical therapy-periodontal flap	<ul style="list-style-type: none"> <li>- Develop proficiency in designing and</li> </ul>	<ul style="list-style-type: none"> <li>- How to perform effective root surface</li> </ul>	BCQs

	surgery	elevating periodontal flaps to provide access to the root surfaces and periodontal pockets for thorough therapy.	debridement, including the removal of microbial biofilm and calculus deposits, to promote periodontal health. - Techniques for reducing pocket depth and achieving complete pocket closure through flap surgery, optimizing periodontal outcomes.	
48	Periodontal surgical technique- (gingival curettage, gingivectomy)	- Develop proficiency in performing gingival curettage to remove inflamed and necrotic tissues, facilitating improved periodontal health. - Understand the indications for and appropriate case selection criteria for gingival curettage and gingivectomy procedures.	- How to execute gingivectomy procedures to remove excess or diseased gingival tissue, optimizing esthetics and periodontal health. - Planning and execution of periodontal surgical techniques, including incision design, tissue removal, and suturing.	
49	Periodontal dressing	- Comprehensive understanding of periodontal dressings, their purposes, and the different types available for clinical use.	- How to properly apply periodontal dressings to protect surgical sites, control bleeding, and promote wound healing. - Describe the role of periodontal dressings in postoperative care, including patient comfort and promoting a healthy healing environment.	BCQs

50	Treatment of Gingival enlargement	<ul style="list-style-type: none"> <li>- Classify various types of gingival enlargement, including inflammatory, drug-induced, and hereditary forms, based on clinical and histological features.</li> <li>- Understand the underlying causes and risk factors associated with gingival enlargement, such as medication-related factors, systemic diseases, and local irritants.</li> </ul>	<ul style="list-style-type: none"> <li>- Differentiate gingival enlargement from other conditions that may present with similar clinical features, ensuring accurate diagnosis and treatment planning.</li> <li>- Treatment options and management techniques for gingival enlargement, including periodontal surgery, medication adjustments, and oral hygiene education.</li> </ul>	BCQs
51	Periodontal plastic and aesthetic surgery / Muco-gingival Therapy/ - introduction	<ul style="list-style-type: none"> <li>- Understanding of the aesthetic concerns and patient expectations related to the appearance of the periodontium.</li> <li>-Knowledge of the surgical techniques and procedures used in muco-gingival therapy to improve the appearance and symmetry of the gingiva.</li> </ul>	<ul style="list-style-type: none"> <li>- How to conduct a comprehensive diagnostic assessment of the periodontium to identify areas in need of muco-gingival therapy.</li> <li>- Identify various treatment options available for enhancing the aesthetics of the periodontium, including soft tissue grafting and gingival recontouring.</li> </ul>	BCQS, OSCE, OSPE
52	Therapy to correct marginal tissue recession – flap procedures	<ul style="list-style-type: none"> <li>- Understand the surgical techniques for achieving root coverage incases of marginal tissue recession, including connective tissue</li> </ul>	<ul style="list-style-type: none"> <li>- How to diagnose and select cases for flap procedures to correct marginal tissue recession, considering factors like recession depth, attachment</li> </ul>	SEQs

		grafts and free gingival grafts.	loss, and esthetic concerns. - How to design and elevate flaps to access the recession defects, allowing for effective root coverage and soft tissue enhancement.	
53	Surgical treatment of gingival recession-pedicle flap and free gingival grafts	- Able to differentiate between pedicle flap and free gingival graft techniques. - Understand the indications, contraindications, and clinical outcomes of pedicle flap and free gingival graft procedures.	- Explain the principles and techniques of pedicle flap and free gingival graft surgeries.	BCQS, OSCE, OSPE
54	Surgical crown lengthening	- Develop the ability to diagnose excessive gingival display (gummy smile) and select appropriate cases for surgical crown lengthening, considering esthetic and functional factors. - Understand techniques for managing both soft and hard tissues during crown lengthening, ensuring	- How to plan and execute surgical crown lengthening procedures, including the design of incisions, flap elevation, and bone recontouring.	SEQs

		an esthetically pleasing outcome and adequate tooth structure exposure.		
55	Frenectomy and Frenotomy	<ul style="list-style-type: none"> <li>- Develop the ability to evaluate the anatomy and attachment of oral frenula, including maxillary labial frenum and lingual frenulum.</li> </ul>	<p>How to identify cases requiring frenectomy or frenotomy and understand the indications for these procedures.</p> <ul style="list-style-type: none"> <li>- surgical techniques and instruments used in frenectomy and frenotomy procedures, including incision design and tissue resection.</li> </ul>	BCQs SEQs
56	Introduction to Periodontal Regenerative and Reconstructive Therapy	<ul style="list-style-type: none"> <li>- Understanding of the principles of periodontal regeneration and reconstructive therapy to restore lost periodontal structures.</li> </ul>	<ul style="list-style-type: none"> <li>- How to conduct a comprehensive diagnostic assessment to identify cases where periodontal regeneration or reconstruction is indicated.</li> <li>- Identify the various treatment options available for periodontal regeneration and reconstruction, including guided tissue regeneration and bone grafting.</li> </ul>	BCQs
57	Periodontal Regenerative and Reconstructive Therapy – types of graft material	<ul style="list-style-type: none"> <li>- Able to identify and differentiate between various types of graft materials used in periodontal therapy.</li> <li>- Understand the</li> </ul>	<ul style="list-style-type: none"> <li>- Describe the types of graft materials used in periodontal regenerative and reconstructive therapy, including</li> </ul>	BCQs OSPE/OSCE

		indications, contraindications, and clinical outcomes associated with different graft materials.	autografts, allografts, xenografts, and alloplasts.	
58	Flap Techniques for Periodontal Regenerative and Reconstructive Therapy	<ul style="list-style-type: none"> <li>- Understand the principles and goals of flap techniques in periodontal regenerative and reconstructive therapy.</li> <li>- Able to differentiate between various flap techniques used in periodontal surgery.</li> </ul>	<ul style="list-style-type: none"> <li>- Identify and explain the different types of flap techniques, including modified Widman flap, envelope flap, and papilla preservation flap.</li> </ul>	BCQs
59	Treatment of Furcation Involved teeth	<ul style="list-style-type: none"> <li>- Develop the ability to assess and classify furcation involvement in multi-rooted teeth, considering factors like location and severity.</li> </ul>	<ul style="list-style-type: none"> <li>- Describe the surgical techniques and instruments used to access and treat furcation-involved areas, including root resection, furcation plasty, and guided tissue regeneration.</li> <li>- How to develop treatment plans for furcation-involved teeth, considering factors like tooth anatomy, defect morphology, and systemic health.</li> </ul>	BCQs OSPE/OSCE
60	Trauma from occlusion/periodontal response to external forces	<ul style="list-style-type: none"> <li>- Understanding of trauma from occlusion and its potential impact on periodontal health, including the etiology and mechanisms involved.</li> </ul>	<ul style="list-style-type: none"> <li>- How to conduct clinical assessments to identify signs and symptoms of trauma from occlusion, such as tooth mobility, fremitus, and occlusal</li> </ul>	BCQs

			interferences.	
61	Periodontal splinting	- Cases and indications for periodontal splinting, considering factors like tooth mobility, periodontal support, and patient needs	- Describe various techniques and materials used in periodontal splinting, including flexible splints, rigid splints, and wire splints.	BCQs
62	<b>Discussion &amp; Revision of the whole course</b>			
63	<b>Discussion &amp; Revision of the whole course</b>			
64	<b>Weekly Class Test</b>			
65 66	<b>Clinical Practical Test Viva</b> <b>Weekly online test</b>			
	<b>Summative assessment</b>	<b>Total marks=100</b> <b>BCQs=60</b> <b>OSCE/OSPE=40</b>		

Commencement of Module		<b>MODULE III: OPERATIVE DENTISTRY</b> <b>Weekly Schedule of Module</b>	
Activity	Week	Interactive Lectures (Groups A, B, C, D)	Clinical Rotation in OPD/SGD/Skill Lab (Groups A, B, C, D)
<b>Academic Session – BDS Third Professional</b>	Week- 1	Definition & Etiology of Dental caries.	Orientation to the Operative OPD Identify restorative instruments Demonstrate positioning of the patients and the Dentist in the OPD.
	Week- 2	Pathogenesis of Dental Caries Prevention of Dental Caries	Understanding of Radiographs Application of matrix band retainer, band & wedge on phantom teeth in skill lab
	Week- 3	Examination and Diagnosis of Dental Caries, Examination and Diagnosis of Erosion, Attrition, and Abrasion	Revision of the principles of cavity design of Class I, V & its restoration on the patient's tooth in the OPD
	Week- 4	Examination and Diagnosis of Cracked Tooth	Preparation & restoration of Class II slot, III, cavities on patients' teeth in OPD
	Week- 5	Selection of restorative materials (Dental amalgam, tooth-colored materials)	Application of a Rubber dam on the phantom teeth in the skill lab
	Week- 6	Causes of restorative failure & Postoperative problems	Discuss steps of root canal procedure Demonstration of Endodontic Instruments
	Week- 7	Understand the methods of isolation and control of the operating field	Demonstration of the root canal procedure on an extracted tooth
	Week- 8	Discuss esthetic considerations in diagnosis and treatment planning, Use of lasers in dentistry	Poster /Presentation/Quiz competition <b>Clinical OPD test (OSCE)</b>
	Week- 9	<b><i>Theory &amp; Practical/viva Exam</i></b>	

**MODULE IV: PROSTHODONTICS**  
**REMOVABLE PARTIAL DENTURE**

S #	Lecture topic	Learning outcomes At the end of each topic, a final year student should be able to:	Mode Of Teaching	Assessment Method
1	<b>Introduction, Objectives, Terminology of RPD</b>	<ul style="list-style-type: none"> <li>• Define the term “Removable partial denture”</li> <li>• Discuss the benefits of partial dentures</li> <li>• Enumerate the basic parts of a partial denture</li> <li>• Differentiate between acrylic and cast partial dentures</li> </ul>	IL, SGD	MCQs, SEQs
2	<b>Considerations for managing partial tooth loss</b>	<ul style="list-style-type: none"> <li>• Understand the demands of patients after tooth loss</li> <li>• Understand the consequences of tooth loss</li> <li>• Explain the benefits of restoration of the missing teeth</li> </ul>	IL, SGD	MCQs, SEQs
3	<b>Classification of partially edentulous arches</b>	<ul style="list-style-type: none"> <li>• Recall the requirements of a universally acceptable classification system</li> <li>• Enlist a few classification systems in use</li> <li>• Summarize the salient features of Kennedy's classification</li> <li>• Enlist the Applegate rules (in correct order)</li> <li>• Identify the given casts according to Kennedy's classification</li> </ul>	IL	MCQs, SEQs, OSCE
4	<b>Biomechanics of RPD</b>	<ul style="list-style-type: none"> <li>• Describe possible movements of a partial denture and various components that counter these movements.</li> </ul>	IL	MCQs, SEQs
5	<b>Major and Minor Connectors</b>	<p>Describe principles the for design and location of connectors</p> <p>Describe indications, contraindications and</p>	IL	MCQs, SEQs, OSCE

		<p>characteristics of various maxillary and mandibular major connectors</p> <ul style="list-style-type: none"> <li>• Define minor connectors</li> <li>• Describe the function, form, and location of minor connectors</li> </ul>		
6	<b>Rest and Rest Seat</b>	<ul style="list-style-type: none"> <li>• Define the terms “Rest” and “Rest seat”</li> <li>• Enlist the functions of a rest</li> <li>• Recall the form of an occlusal rest and rest seat</li> <li>• Explain the concept of an extended occlusal rest</li> <li>• Discuss the features of the interproximal rest seats</li> <li>• Describe the application of intracoronal rests</li> <li>• Recall the support for occlusal rests</li> <li>• Comprehend the application of lingual rests on anterior teeth</li> <li>• Comprehend the application of incisal rests</li> </ul>	IL	MCQs, SEQs, OSCE
7	<b>Direct Retainer</b>	<ul style="list-style-type: none"> <li>• Define the term “Direct retainer”</li> <li>• Summarize the role of direct retainer in prosthesis movement control</li> <li>• Classify the direct retainers used in partial dentures</li> <li>• Carry out analysis of tooth contours for retentive clasps</li> <li>• Discuss the factors affecting the amount of retention of clasps</li> <li>• Recall the main types of clasp assemblies</li> <li>• Outline the criteria for selecting a given clasp</li> </ul>	IL, SGD	MCQs, SEQs, OSCE
8	<b>Indirect Retainer</b>	<ul style="list-style-type: none"> <li>• Define the term “Indirect retainer”</li> <li>• Recall the functions of an indirect retainer</li> <li>• Recall the factors affecting the effectiveness of indirect retainers</li> </ul>	IL	MCQs, SEQs, OSCE

		<ul style="list-style-type: none"> <li>• Classify the forms of indirect retainers</li> </ul>		
9	<b>Denture base considerations</b>	<ul style="list-style-type: none"> <li>• Recall the functions of denture bases</li> <li>• Enumerate the methods of attaching the denture bases to framework</li> <li>• Describe the ideal denture base material</li> <li>• Discuss the advantages of metal bases</li> </ul>	IL	MCQs, SEQs, OSCE
10	<b>Principles of RPD design</b>	<ul style="list-style-type: none"> <li>• Describe the design principles of Kennedy's Class I, II and III situations</li> <li>• Outline the strategies for controlling the amount of stress transmitted to the abutment teeth</li> <li>• Outline the essential steps in designing the partial denture</li> <li>• Explain the components of partial denture design</li> <li>• Perform designing of partial dentures</li> </ul>	IL, Lab Demo	MCQs, SEQs, OSCE
11	<b>Surveying</b>	Principles of surveying and its application in designing a prosthesis	IL, SGD	MCQs, SEQs, OSCE
12	<b>Diagnosis and treatment planning</b>	<ul style="list-style-type: none"> <li>• Define the terms "Diagnosis" and "Treatment planning"</li> <li>• Understand the uniqueness of treatment for a patient</li> <li>• Perform a detailed history taking</li> <li>• Perform a detailed clinical examination</li> <li>• Order and interpret appropriate radiographs</li> <li>• Explain the role of diagnostic casts in treatment planning</li> <li>• Formulate a list of differential diagnosis</li> <li>• Formulate a treatment plan for a given case</li> </ul>	IL, CST	MCQs, SEQs, OSCE
13	<b>Preparation of mouth for RPD</b>	<ul style="list-style-type: none"> <li>• Identify the mouth preparations required for a given case</li> <li>• Order the oral surgical preparation</li> </ul>	IL	MCQs, SEQs

		<ul style="list-style-type: none"> <li>• Implement procedures to manage/condition abused and irritated soft tissues</li> <li>• Understand the need for periodontal preparation</li> <li>• Understand the need for abutment teeth preparation</li> </ul>		
14	<b>Preparation of abutment teeth</b>	<ul style="list-style-type: none"> <li>• Classify the abutment teeth according to need of modifications</li> <li>• Understand the sequence of abutment preparations</li> <li>• Plan the abutment preparations on sound enamel or existing restorations</li> <li>• Plan the abutment preparations using conservative restorations</li> <li>• Plan the abutment preparations using complete coverage crowns</li> <li>• Identify the need for splinting abutment teeth</li> <li>• Plan using isolated teeth as abutments</li> </ul>	IL	MCQs, SEQs
15	<b>Impression Materials and Procedures</b>	<ul style="list-style-type: none"> <li>• Summarize the properties of available impression materials</li> <li>• Understand the precautions to be observed in handling hydrocolloid impressions</li> <li>• Perform the step-by-step procedure for making hydrocolloid impressions</li> <li>• Perform the step-by-step procedure for making a stone cast</li> <li>• Explain the possible causes of an inaccurate or weak cast</li> <li>• Fabricate individual impression trays from acrylic resin</li> </ul>	IL, Lab Demo	MCQs, SEQs, OSCE
16	<b>Support for distal extension denture base</b>	<ul style="list-style-type: none"> <li>• Understand the requirements of support for the distal extension denture base</li> <li>• Outline the factors that influence the support of a distal extension denture base</li> </ul>	SGD	MCQs, SEQs

		<ul style="list-style-type: none"> <li>• Plan for recording the anatomic form impression</li> <li>• Plan for recording the functional form impression</li> </ul>		
<b>17</b>	<b>Occlusal relationships for RPD</b>	<ul style="list-style-type: none"> <li>• Describe the desirable occlusal contact relationships</li> <li>• Enumerate the methods of establishing occlusal relationships</li> <li>• Select appropriate materials for posterior teeth</li> <li>• Understand the jaw relations for a mandibular removable partial denture opposing a maxillary complete denture</li> </ul>	SGD	MCQs, SEQs
<b>18</b>	<b>Types of RPD</b>	Provision of the prosthesis in different types of RPD cases	IL	MCQs, SEQs

<b>Commencement of Module</b>		<b>MODULE IV: PROSTHODONTICS</b> <b>Weekly Schedule of Module</b>
<b>Activity</b>	<b>Week</b>	<b>Lecture 1</b>
<b>Academic Session – BDS Third Professional</b>	Week- 1	The Partial Denture Equation
	Week- 2	Dental Prostheses and Classification Systems
	Week- 3	Interim Removable Partial Dentures, Denture Bases and Impression Techniques
	Week- 4	Treatment Planning
	Week- 5	Major and minor connectors
	Week- 6	Rests and Rests seats, Direct Retainer
	Week- 7	Tooth tissue supported Dentures-CBL-RPD
	Week- 8	Maxillomandibular Relations and Occlusion, Delivery of Dentures
	Week- 9	<b>THEORY AND VIVA EXAMINATION</b>

**CURRICULUM OUTLINES OF THE THIRD YEAR BDS PARELLEL SUBJECTS**

<b>GENERAL MEDICINE</b>		
<b>INTRODUCTION TO GENERAL MEDICINE: PRINCIPLES OF HISTORY, EXAMINATION, INVESTIGATION &amp; DIAGNOSIS</b>		
<b>S:NO</b>	<b>TOPIC</b>	<b>LEARNING OBJECTIVES-TOTAL HOURS =180</b>
1.	<b>Introduction To General Medicine</b>	<ul style="list-style-type: none"> <li>• Discuss the scope of general medicine.</li> <li>• Identify goals of studying general medicine.</li> <li>• Discuss the importance of a doctor and patient relation.</li> <li>• Explain the importance of Ethics when managing patients</li> </ul>
2.	<b>Clinical teachings- History, examination, investigations and diagnosis</b>	<ul style="list-style-type: none"> <li>• Take dental history of a patient presenting to general medicine ward/clinic.</li> <li>• Interpret various signs and their clinical correlation when performing a general physical examination: <ul style="list-style-type: none"> <li>• Pallor;</li> <li>• Cyanosis;</li> <li>• Jaundice;</li> <li>• Clubbing;</li> <li>• Thyroid;</li> <li>• Lymph nodes;</li> <li>• Dehydration;</li> <li>• Edema;</li> <li>• Pulse, B.P Temp, R/R.</li> </ul> </li> </ul>
<b>GASTRO-INTESTINAL &amp; LIVER DISEASES</b>		
1.	<b>Liver Diseases</b>	<ul style="list-style-type: none"> <li>➤ Discuss the etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following GI/Liver diseases: <ul style="list-style-type: none"> <li>➤ GERD;</li> <li>➤ Gastritis/Peptic Ulcer;</li> <li>➤ Gastroenteritis;</li> <li>➤ Mal-Absorption;</li> <li>➤ IBS/IBD;</li> <li>➤ Hepatitis (Acute/Chronic);</li> <li>➤ CLD and Hepatocellular Carcinoma.</li> </ul> </li> </ul>
2.	<b>Clinical teachings- History and Examination of GI/ Liver Disease</b>	<ul style="list-style-type: none"> <li>➤ Take a comprehensive history for a patient presenting to the general medicine clinics with complaints of GI/Liver disease.</li> <li>➤ Perform clinical examination of patient presenting to the general medicine clinics with complaints of GI/Liver disease: <ol style="list-style-type: none"> <li>1. Inspection;</li> </ol> </li> </ul>

		<p>2. Palpation;</p> <p>3. Percussion;</p> <p>4. Auscultation</p>
<b>CARDIOVASCULAR DISEASES</b>		
1.	<b>Cardiovascular Diseases</b>	<ul style="list-style-type: none"> <li>➤ Discuss the etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following cardiovascular diseases: <ul style="list-style-type: none"> <li>➤ Ischemic Heart Diseases (Angina/MI)</li> <li>➤ CHF</li> <li>➤ Rheumatic Fever</li> <li>➤ Infective Endocarditis</li> <li>➤ Hypertension</li> <li>➤ Valvular Heart Diseases (MS/MR/AS/AR)</li> <li>➤ Congenital Heart Diseases (VSD/TOF)</li> </ul> </li> </ul>
2.	<b>Clinical Teachings- History taking in CVS</b>	<ul style="list-style-type: none"> <li>• Take a comprehensive history for a patient presenting to the general medicine clinics with complaints of cardiovascular disease pain and symptoms: <ul style="list-style-type: none"> <li>➤ Chest pain;</li> <li>➤ Dyspnea;</li> <li>➤ Syncope.</li> </ul> </li> </ul>
<b>RESPIRATORY DISEASES</b>		
1.	<b>Respiratory Diseases</b>	<ul style="list-style-type: none"> <li>➤ Discuss the etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following respiratory diseases: <ul style="list-style-type: none"> <li>➤ TB;</li> <li>➤ COPD;</li> <li>➤ Pneumonia;</li> <li>➤ Asthma;</li> <li>➤ Bronchogenic Carcinoma;</li> <li>➤ Bronchiectasis;</li> <li>➤ Pneumothorax/Pleural effusion.</li> </ul> </li> </ul>
2.	<b>Clinical Teachings- History taking and clinical examination in Respiratory disease</b>	<ul style="list-style-type: none"> <li>➤ Take a comprehensive history for a patient presenting to the general medicine clinics with complaints of respiratory disease pain and symptoms: <ul style="list-style-type: none"> <li>➤ Cough;</li> <li>➤ Chest pain;</li> <li>➤ Wheezing;</li> <li>➤ Haemoptysis.</li> </ul> </li> <li>• Perform clinical examination (front and back of chest) of patient</li> </ul>

		<p>presenting to the general medicine clinics with complaints of respiratory disease:</p> <ul style="list-style-type: none"> <li>➤ Inspection;</li> <li>➤ Palpation;</li> <li>➤ Percussion;</li> <li>➤ Auscultation.</li> </ul> <ul style="list-style-type: none"> <li>• Interpret findings seen on chest x-rays for Pneumothorax/ pleural effusion.</li> </ul>
<b>NEUROLOGICAL DISEASES</b>		
1.	<b>Neurological diseases</b>	<ul style="list-style-type: none"> <li>➤ Discuss the etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following neurological diseases</li> <li>➤ Facial Pain/Palsy;</li> <li>➤ Headache;</li> <li>➤ Stroke;</li> <li>➤ Epilepsy;</li> <li>➤ Parkinsons;</li> <li>➤ Meningitis</li> </ul>
2.	<b>Clinical Teachings- History taking and clinical examination in Neurological disease</b>	<ul style="list-style-type: none"> <li>• Take a comprehensive history for a patient presenting to the general medicine clinics with complaints of neurological disease pain and symptoms: <ul style="list-style-type: none"> <li>➤ Headache;</li> <li>➤ Facial pain;</li> <li>➤ Dizziness;</li> <li>➤ Coma;</li> <li>➤ Amnesia.</li> </ul> </li> </ul>
		<ul style="list-style-type: none"> <li>• Assess higher mental functions of patients presenting to the general medicine clinics: <ul style="list-style-type: none"> <li>➤ Level of consciousness;</li> <li>➤ Behavior;</li> <li>➤ Speech;</li> <li>➤ Memory.</li> </ul> </li> <li>• Perform examination of: <ul style="list-style-type: none"> <li>➤ Cranial nerves;</li> <li>➤ Motor system and reflexes;</li> <li>➤ Sensory system Crude touch, pain and temperature;</li> <li>➤ Fine touch, pressure, vibration, joint position;</li> <li>➤ Two-point localization and two-point discrimination Cerebellum</li> </ul> </li> </ul>
<b>KIDNEY AND URINARY TRACT</b>		

1.	<b>Diseases of Kidney and Urinary Tract</b>	<ul style="list-style-type: none"> <li>• Discuss the etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following diseases of kidney and urinary tract:           <ul style="list-style-type: none"> <li>➤ Acute and Chronic Renal Failure;</li> <li>➤ Nephrotic and Nephritic Syndrome;</li> <li>➤ UTI;</li> <li>➤ Electrolytes Imbalances.</li> </ul> </li> </ul>
<b>ENDOCRINE SYSTEM</b>		
1.	<b>Diseases of Endocrine System:</b>	<ul style="list-style-type: none"> <li>• Discuss the etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following diseases           <ul style="list-style-type: none"> <li>➤ Pituitary Diseases;</li> <li>➤ -Thyroid Disorders;</li> <li>➤ -Parathyroid Disorders;</li> <li>➤ -Adrenal Disorders;</li> <li>➤ -Diabetes Mellitus;</li> <li>➤ -Vitamin Deficiencies (Vit. B, C, D).</li> </ul> </li> </ul>
<b>INFECTIOUS DISEASE</b>		
1.	<b>Infectious Diseases</b>	<ul style="list-style-type: none"> <li>• Discuss the sources, etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following Infectious diseases:           <ul style="list-style-type: none"> <li>➤ Tetanus;</li> <li>➤ Malaria;</li> <li>➤ Viral Fevers (Dengue, Chikungunya);</li> <li>➤ HIV/Mumps;</li> <li>➤ Sepsis;</li> <li>➤ Diphtheria;</li> <li>➤ Hospital Acquired Infections (Hepatitis, Pneumonia, Candidiasis).</li> </ul> </li> </ul>
		<b>BLOOD</b>
1.	<b>Blood Disorders</b>	<ul style="list-style-type: none"> <li>• Discuss the sources, etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following blood disorders:           <ul style="list-style-type: none"> <li>➤ Anemia;</li> <li>➤ Leukemia;</li> <li>➤ Lymphoma.</li> <li>➤ Thrombocytopenia;</li> <li>➤ Bleeding disorders/Anti-coagulants;</li> <li>➤ Blood products and transfusions;</li> <li>➤ Shock (anaphylactic, cardiogenic, hypovolemic).</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>• Discuss the following: Blood products and transfusion;</li> <li>• Anticoagulant and antithrombotic therapy;</li> <li>• Haematopoietic stem cell transplant</li> </ul>
<b>RHEUMATOLOGICAL AND BONE DISEASES</b>		
1.	<b>Diseases of joints and bones</b>	<ul style="list-style-type: none"> <li>• Discuss the sources, etiology, clinical features, types, differential diagnosis, investigations, diagnosis, management and complications of the following diseases of joints and bones: <ul style="list-style-type: none"> <li>➤ SLE;</li> <li>➤ RA;</li> <li>➤ Sero-negative Arthropathy;</li> <li>➤ Osteoporosis/ Osteomalacia;</li> <li>➤ Sjogren's syndrome.</li> </ul> </li> </ul>

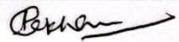
**Muhammad Medical and Dental College**  
**Ibn-e-Sina University Mirpurkhas**  
**Third Professional BDS – 2026 Batch**

**Department: MEDICINE**  
**Module: 1**

DAY	8:00 – 10:30	11:30-2:00	2:00-2:30	2:30-4:00
Monday 12-01-2026	WARD POSTING MED – I Dr Nadeem Memon / Dr Saba Khan/Dr Shabnam			
Week 1 Friday 16-01-2026	Lecture 8:00-10:00 Ischemic heart disease (IHD) Dr Shabnam	Group CD WARD POSTING MED – I Dr Shabnam		Group CD Tutorial/Workshop Dr Khushal – Pulse - B.P - Temperature
Week 2 Friday 23-01-2026	CCF Dr Muneeba	WARD POSTING MED – I Dr Muneeba		Dr Sanha Blood Sampling
Week 3 Friday 30-01-2026	rheumatic fever Dr Saba Khan	WARD POSTING MED – I Dr Saba Khan		Dr Iqra N/G Tube Insertion
Week 4 Friday 06-02-2026	Infective endocarditis (IE) Dr Nadeem Memon	WARD POSTING MED – I Dr Nadeem Memon		Dr Hamna I/V Cannula
Week 5 Friday 13-02-2026	M.S+M.R Dr Faizan	WARD POSTING MED – I Dr Faizan		Dr Samra Carryout Blood Transfusion
Week 6 Friday 20-02-2026	A.S+A.R Dr Shabnam	WARD POSTING MED – I Dr Shabnam		Dr Rajesh Urinary Catherization
Week 7 Friday 27-02-2026	Hypertension Dr Muneeba	WARD POSTING MED – I Dr Muneeba		Dr Khushal 12 Lead ECG
Week 8 Friday 06-03-2026	Iron Deficiency Anaemia Dr Saba Khan	WARD POSTING MED – I Dr Saba Khan		Dr Sneha Nebulization
Week 9 Friday 13-03-2026	T.B Dr Nadeem Memon	WARD POSTING MED – I Dr Nadeem Memon		Dr Iqra Setup an Infusion

NAME & SIGNATURE

  
**PROFESSOR DR NADEEM MEMON**  
**MED 1 MMDC**

  
**PROF DR ABDUL QADIR KHAN**  
**CHAIRMAN OF MEDICINE DEPARTMENT**

GENERAL SURGERY		
PRINCIPLES OF SURGERY		
S/No.	Topic	Learning Objectives
1.	<b>Physiological Response to Surgical Trauma and Homeostasis</b>	<ul style="list-style-type: none"> <li>Discuss the classical concepts of homeostasis and the physicochemical and biochemical changes associated with it.</li> <li>Enlist: <ul style="list-style-type: none"> <li>➤ Mediators of metabolic response to injury;</li> <li>➤ Avoidable factors that compound the metabolic response to injury.</li> </ul> </li> <li>Describe changes in body composition.</li> <li>Describe optimal perioperative care.</li> </ul>
2.	<b>Wound and its Repair</b>	<ul style="list-style-type: none"> <li>Describe the normal healing response.</li> <li>Discuss the management of wounds.</li> <li>List disorders of healing.</li> <li>Categorize a variety of scars and their treatment</li> </ul>
3.	<b>Pathophysiology and Management of Shock</b>	<ul style="list-style-type: none"> <li>Discuss the pathophysiology and patterns of shock.</li> <li>Prioritize the sequence of resuscitation.</li> <li>Discuss the use of blood and blood products in shock. Describe the risks of blood transfusion.</li> </ul>
4.	<b>Investigation and treatment of infection and parasitic infestation of surgical</b>	<ul style="list-style-type: none"> <li>Classify infections.</li> <li>List the determining factors for the development of infection.</li> <li>Discuss the local and systemic manifestations, signs and symptoms of bacterial and parasitic infections</li> <li>Describe the principles of antimicrobial treatment.</li> <li>Justify the choice of antibiotics and prophylaxis in various infections.</li> </ul>
5.	<b>Haemorrhage, Blood Transfusion, and their implications</b>	<ul style="list-style-type: none"> <li>Define: <ul style="list-style-type: none"> <li>➤ Haemorrhage;</li> <li>➤ Blood transfusion.</li> </ul> </li> <li>Discuss the types and pathophysiology of Haemorrhage.</li> <li>List various blood and blood products used for transfusion.</li> <li>Describe the preparation of blood products and the procedure for transfusion.</li> </ul>

6.	<b>Management of Acutely injured and critically ill patients</b>	<ul style="list-style-type: none"> <li>● Define: <ul style="list-style-type: none"> <li>➤ Trauma;</li> <li>➤ Aspiration pneumonia;</li> <li>➤ Embolic phenomenon.</li> </ul> </li> <li>● Describe types of injuries</li> <li>● Discuss: <ul style="list-style-type: none"> <li>➤ Primary and secondary survey;</li> <li>➤ Resuscitation.</li> </ul> </li> </ul>
7.	<b>Principles in management of common Skin and Soft Tissue problems</b>	<ul style="list-style-type: none"> <li>● Discuss the sign and symptoms of acutely injured and critically ill patients.</li> <li>● Diagnose acutely injured and critically ill patients based on history and clinical examination and investigations.</li> <li>● Formulate treatment and prevention plan for acutely injured and critically ill patients.</li> <li>● Define: <ul style="list-style-type: none"> <li>➤ Ulcers;</li> <li>➤ Abscess;</li> <li>➤ Sinus;</li> <li>➤ Fistula;</li> <li>➤ Swelling.</li> <li>➤ Embedded foreign bodies and Minor injuries</li> </ul> </li> </ul>
8.	<b>Principles of Anaesthesia</b>	<ul style="list-style-type: none"> <li>● Define Anaesthesia.</li> <li>● Classify various types of anaesthesia.</li> <li>● Discuss the mechanism and stages of different anaesthesia.</li> <li>● Manage patients that are scheduled for general anaesthesia, including considerations for pre-operative fasting and airway assessment.</li> </ul>
9.	<b>Nutrition of surgical patients</b>	<p>pre-operative and post-operative malnutrition. Describe the balance of nutrients.</p> <p>Assess the nutritional status of surgical patients. Manage the nutritional status of patients</p>

## EMERGENCIES

1.	<b>Poly trauma with airway difficulty and circulatory instability</b>	<ul style="list-style-type: none"> <li>Discuss initial evaluation and intervention of patients with polytrauma and airway difficulty.</li> <li>Discuss steps of intubation of trauma patient.</li> <li>Describe simple airway strategy</li> </ul>
2.	<b>Uncontrolled External Hemorrhage</b>	<ul style="list-style-type: none"> <li>Define uncontrolled external hemorrhage.</li> <li>Discuss types of uncontrolled external hemorrhage.</li> <li>Describe primary and secondary survey.</li> <li>Manage patients with uncontrolled external hemorrhage</li> </ul>
3.	<b>Patient in Hypovolemic or Septicemic Shock</b>	<ul style="list-style-type: none"> <li>Define: <ul style="list-style-type: none"> <li>➤ Hypovolemic;</li> <li>➤ Septicaemic Shock.</li> </ul> </li> <li>Classify hypovolemic and septicaemic shock.</li> <li>Differentiate between hypovolemic and septicemic shock based on pathogenesis and signs and symptoms.</li> <li>Discuss management of hypovolemic and septicemic shock.</li> </ul>
4	<b>Tension Pneumothorax</b>	<ul style="list-style-type: none"> <li>Define Tension Pneumothorax.</li> <li>Discuss pathophysiology, signs and symptoms and treatment of Tension Pneumothorax</li> </ul>
5.	<b>Cardiac Tamponade</b>	<ul style="list-style-type: none"> <li>Define Cardiac Tamponade.</li> <li>Discuss pathophysiology, signs and symptoms and treatment of cardiac tamponade</li> </ul>
6.	<b>Unconscious patient due to Head Injury</b>	<ul style="list-style-type: none"> <li>Discuss signs, symptoms and management of an unconscious patient due to a head injury.</li> </ul>
7.	<b>Gas Gangrene and Tetanus</b>	<ul style="list-style-type: none"> <li>Define: <ul style="list-style-type: none"> <li>Gas Gangrene; Tetanus.</li> </ul> </li> <li>Discuss types of Gas Gangrene and Tetanus. Differentiate gas gangrene and tetanus based on signs and symptoms and treatment.</li> </ul>
8.	<b>Burns</b>	<ul style="list-style-type: none"> <li>Discuss the depth of burn, quantity of fluid to be given, techniques, and pathophysiology of burn.</li> <li>Manage patients presenting to the department with burns.</li> </ul>
<b>HEAD &amp; NECK</b>		
1.	Development abnormalities of palate, lip	<ul style="list-style-type: none"> <li>Discuss types and features of developmental abnormalities of palate and lip.</li> <li>Manage developmental abnormalities of palate and lip</li> </ul>

2	Principles of management of Head Injuries and its complications	<ul style="list-style-type: none"> <li>• List types of head injuries.</li> <li>• Manage patients presenting to the hospital with headinjuries.</li> <li>• Discuss complications of patients presenting with headinjuries</li> </ul>
3	Diseases of Salivary Glands(Inflammation, Calculus, Tumors)	<ul style="list-style-type: none"> <li>• Describe various diseases and abnormalities of salivaryglands.</li> <li>• Discuss clinical features and management of variousdiseases and abnormalities of salivary glands</li> </ul>
4.	Neck lumps,including Lymphatic Thyroid, Parathyroid	<ul style="list-style-type: none"> <li>• Discuss clinical features, abnormalities and managementof neck lumps, including: <ul style="list-style-type: none"> <li>➢ Lymphatics;</li> <li>➢ Thyroid</li> <li>➢ Parathyroid</li> </ul> </li> </ul>
	<b>GASTRO-INTESTINAL TRACT</b>	
1	Conditions Causing Acute Abdomen	<ul style="list-style-type: none"> <li>• Discuss causes, clinical features, and management ofconditions causing acute abdomen.</li> </ul>
2	Abdominal Wall IHernia	<ul style="list-style-type: none"> <li>• Discuss clinical presentation and management of patients with abdominal wall hernia</li> </ul>
	<b>LIVER</b>	
1	Obstructive Jaundice	<ul style="list-style-type: none"> <li>• Discuss clinical features and management of ObstructiveJaundice</li> </ul>
2	Hydatid cyst	<ul style="list-style-type: none"> <li>• Discuss clinical features and management of Hydatid cyst.</li> </ul>
	<b>GALL BLADDER</b>	
1	<b>Acute and chronic Cholecystitis</b>	<ul style="list-style-type: none"> <li>• Discuss types, clinical features, and management ofacute and chronic cholecystitis</li> </ul>
2	<b>Cholelithiasis and its Complications</b>	<ul style="list-style-type: none"> <li>• Discuss clinical features, management andcomplications of Cholelithiasis</li> </ul>
	<b>SKIN AND SOFT TISSUE</b>	
1	<b>Common benign and malignant skin lesions</b>	<ul style="list-style-type: none"> <li>• Discuss causes, clinical features and management ofcommon benign and malignant skin lesions</li> </ul>
2	<b>Infections</b>	<ul style="list-style-type: none"> <li>• Discuss clinical features and management of: <ul style="list-style-type: none"> <li>➢ Wounds;</li> <li>➢ Ulcers;</li> <li>➢ Abscesses;</li> <li>➢ Sinuses;</li> <li>➢ Fistulae.</li> </ul> </li> </ul>

3	<b>Soft Tissue Lumps</b>	<ul style="list-style-type: none"> <li>Discuss clinical features and management of Soft Tissue Lumps.</li> </ul>
<b>VASCULAR AND NERVE DISORDERS</b>		
1	<b>Arterial Disorders (Aneurysm and Gangrene)</b>	<ul style="list-style-type: none"> <li>Discuss causes, clinical features and management of Aneurysm and Gangrene</li> </ul>
2	<b>Varicosities</b>	<ul style="list-style-type: none"> <li>Discuss causes, clinical features and management of Varicosities</li> </ul>
3	<b>Deep Venous Thrombosis</b>	<ul style="list-style-type: none"> <li>Discuss causes, sign and symptoms and management of Deep venous thrombosis</li> </ul>
4	<b>Peripheral nerve Injuries</b>	<ul style="list-style-type: none"> <li>Discuss causes, clinical features and management of Peripheral nerve Injuries</li> </ul>

<b>SURGERY PLANNER</b>			
<b>Week number/ Dates</b>	<b>Friday 10.00-11.30 am- Prof. Syed Razi Muhammad/ Dr. Jamshed Bashir</b>	<b>Friday 11.30-2 pm- Surgical Ward Dr. Jamshed Bashir (GP. A)/ B)</b>	<b>Friday 2:30 Pm to 4:00 Pm Small group/PBL</b>
1			
2 (24-Jan-2025)	Thyroid anatomy/Investigations	History taking	
3 (31-Jan-2025)	Non Toxic goite	History taking	
4 (07-Feb-2025)	Toxic goitre	General Physical Exam	
5 (14 -Feb 2025 )	Thyroid tumours	General Physical Exam	
6 ( 21-Feb 2025)	Gas gangrene	Examination of swelling	
7 ( 28-Feb 2025)	Tuberculosis	Exam of Thyroid	
8 (07-March-2024)	Tetanus	Exam of Parotid	
9(14-March-2024)	Abscess	Exam of cervical LN	
10(21-March-2024)	Ulcer/Benign lesion of oral cavity	Exam of Ulcer/Sinus/wound	
11(28-March-2024)	Ca tongue	Exam of Neck	
12(04-April-2025)	Daycare surgery	X-Rays/Basic Surgical Investigations	
13(11-April-2025)	Branchial Cyst	Sutures	
14(18-April-2025)	Tracheostomy	Basic Surgical Instruments	
15(25-April-2025)	Metabolic response to injury	Workshop basic procedures (IV line, NG tube, Endotracheal tube, Urethral Catheter)	
16(02-May-2025)	Anatomy of the oral cavity	Review and feedback	
17(09-May-2025)	Oropharyngeal cancer		

18(16-May-2025)	Biopsy		
19(23-May-2025)	Trauma to face/mouth		
20(30-May-2025)	Nutrition		
21(06-Jun-2025)	Introduction to plastic/reconstructive surgery		
22(13-Jun-2025)	Cleft lip Palate		
23(20-Jun-2025)	Skin tumours		
24(27-Jun-2025)	Hypertrophic scars/Keloids		
25(04-July-2025)	Shock, Types & Management		
26(11-July-2025)	Ca tongue		
27(18-July-2025)	Goitre		
28(25-July-2025)	Thyroid Tumors		
29(01-Aug-2025)	Neck swellings		
30(08-Aug-2025)	Surgical Ethics		

**DEPARTMENT OF COMMUNITY AND PREVENTIVE DENTISTRY****MUHAMMAD DENTAL COLLEGE****THIRD YEAR BDS PROGRAM****MODULAR CURRICULUM****BATCH-IV-2024-2025**

	<b>COMMUNITY DENTISTRY MODULE-IV</b>	<b>Total Hours</b>	<b>200</b>
<b>S.no</b>	<b>Learning Objectives</b>	<b>Teaching Strategies</b>	<b>Assessment Tool</b>
	At the end of the session, third year student would be able to		
1.	Define dental public health and its significance	IL, SGD	BCQ, OSPE, Viva
2.	Compare relevance of public health to clinical practice	IL, SGD	BCQS, OSCE, OSPE
3.	Discuss criteria for public health problem	IL, SGD, PBL	BCQs, PBL, Viva,
4.	Justify dental caries, periodontal disease and oral cancer as a public health problem	IL, SGD, PBL, FV	BCQs, PBL, Viva
5.	Explain features of biomedical model of health	IL, SGD	BCQS, OSCE, OSPE
6.	Discuss Alma Ata Declaration along with its features	IL, SGD, FV	BCQs, OSPE, Viva,
7.	Explain the salient features of Ottawa Charter	IL, SGD, PBL, FV	BCQs, OSPE, Viva, PBL
8.	Describe core themes of dental public health	SGD	SEQs, Viva,
9.	Explain the implications of dental public health	SGD	BCQS, Viva
10.	Describe the limitations of life style approach	SGD	BCQs, Viva,
11.	Describe determinants of oral health	IL, SGD, PBL,	BCQs, OSPE, PBL, Viva,
12.	Discuss the basic package of oral care (BPOC) with its examples	IL, SGD, PBL, FV, VD, lab skills	BCQs, OSPE, PBL, Viva,
13.	Define health, disease, disability, illness & ill health	IL,	Viva,
14.	Compare health with disease & illness	SGD	BCQS, OSCE, OSPE

15.	Discuss dimensions of health	IL, SGD	BCQS, OSCE, OSPE
16.	Understand different concepts and taxonomy of need	IL, SGD	BCQS, OSCE, OSPE
17.	Define inequalities in oral health	IL	BCQS, OSCE, OSPE
18.	Illustrate conceptual model of oral health	SGD	BCQS, OSCE, OSPE
19.	Define risk	SGD	BCQS, OSCE, OSPE
20.	Describe principles of strategy design	IL, SGD	BCQS, OSCE, OSPE
21.	Explain different strategy approaches with examples	IL, SGD, PBL,	BCQS, OSCE, OSPE
22.	Define and classify epidemiological studies	IL, SGD	BCQS, OSCE, OSPE
23.	Describe the scope of epidemiology	SGD	BCQS, OSCE, OSPE
24.	Define epidemiological triad and discuss its factors	IL, SGD	BCQS, OSCE, OSPE
25.	Compare different types of epidemiological studies in detail	IL,	BCQS, OSCE, OSPE
26.	Discuss descriptive studies	IL,	BCQS, OSCE, OSPE
27.	Discuss analytical studies	IL,	BCQS, OSCE, OSPE
28.	Discuss and calculate different measures applied in epidemiology surveys	SGD, Practical	BCQS, OSCE, OSPE
29.	Define screening and its aims	IL	BCQS, OSCE, OSPE
30.	Describe the principles and its type of test	IL	BCQS, OSCE, OSPE
31.	Define causation and association	SGD	BCQS, OSCE, OSPE
32.	Explain Bradford Hill's Criteria	IL,	BCQS, OSCE, OSPE
33.	Describe etiology , natural history & epidemiology of dental caries and early childhood caries	IL, SGD, PBL, Practical, VD, OPD, FV	BCQS, OSCE, OSPE

34.	Recognize etiology, natural history & epidemiology of periodontal disease	IL, SGD, PBL, Practical, VD, OPD, FV	BCQs, OSPE, PBL, Viva,
35.	Discuss etiology, natural history & epidemiology of oral cancer	IL, SGD, PBL, Practical, VD, OPD, FV	BCQs, OSPE, PBL, Viva,
36.	Explain etiology, natural history & epidemiology of dental fluorosis	IL, SGD, PBL, Practical, VD, OPD, FV	BCQs, OSPE, PBL, Viva,
37.	Define index and its objective	IL,	BCQS, OSCE, OSPE
38.	State the properties of an ideal index	IL,	BCQS, OSCE, OSPE
39.	Describe the purpose and uses of an index	IL,	BCQS, OSCE, OSPE
40.	Enumerate and discuss different dental indices for oral diseases	SGD,	BCQs, Viva,
41.	Discuss limitations of existing indices	IL,	BCQS, OSCE, OSPE
42.	Identify different tooth notation systems	SGD, Practical	OSPE,
43.	Predict age on clinical pictures and study models	SGD, Practical	OSPE
44.	Demonstrate ergonomics in clinical practice	SGD, Practical	OSPE,
45.	Perform exercises on patients in the out patients department	SGD, OPD	OSPE
46.	Execute examination of institutionalized population like school children	FV,	OSPE
47.	Calculate different measures of oral diseases used in epidemiology	Practical	OSPE
48.	Calculate DMFT measurement	SGD, Practical, FV	OSPE
49.	Calculate CPITN and other periodontal measurements	SGD, Practical, FV	OSPE
50.	Predict the types of Fluorosis	SGD, Practical, FV	OSPE
51.	Topic selection	SGD, Practical	Assign
52.	Literature search	SGD, Practical	Assign

53.	Synopsis Draft	SGD, Practical	Assign, CP
<b>GENERAL MEDICINE</b>			
1.	Discuss the approach to a patient with chest pain & describe the investigations, management and complications of ischemic heart disease including acute coronary syndrome and myocardial infarction.	IL	BCQS, OSCE, OSPE
2.	Discuss the pathophysiology, clinical manifestations and management of different types of heart failure.	IL	BCQS, OSCE, OSPE
3.	Diagnose the of normal ECG, arrhythmias & MI	IL/SGD	BCQS, OSCE, OSPE
4.	Discuss the approach to a patient with primary and secondary hypertension with its investigations & management.	IL	BCQS, OSCE, OSPE
5.	Discuss and describe the Valvular Heart Diseases & its management.	IL	BCQS, OSCE, OSPE
6.	Describe the usual presentations of rheumatic fever and infective endocarditis	IL/ SGD	BCQS, OSCE, OSPE
7.	Describe in detail the pathogenesis, clinical features, evaluation and treatment plan for asthma.	IL	BCQS, OSCE, OSPE
8.	Discuss in detail the pathogenesis, clinical features, evaluation and treatment plan for COPD.	IL	BCQS, OSCE, OSPE
9.	Define TYPE 1 And TYPE 2 respiratory failure and understand the causes.	IL	BCQS, OSCE, OSPE
10.	Assess the benefits and hazards of long term oxygen therapy.	IL	BCQS, OSCE, OSPE
11.	Differentiate between community acquired and hospital acquired pneumonia, assessment of severity and its management.	IL	BCQS, OSCE, OSPE
12.	Discuss the clinical manifestations, evaluation and investigation of pulmonary thromboembolism.	IL	BCQS, OSCE, OSPE
13.	Discuss the pathogenesis, etiology, clinical picture and management of Pleural effusion and pneumothorax	IL	BCQS, OSCE, OSPE
14.	Describe in detail the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Tuberculosis.	IL/SGD	BCQS, OSCE, OSPE
15.	Describe the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Nephritic syndrome	IL	BCQS, OSCE, OSPE
16.	Discuss the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of acute renal failure	IL	BCQS, OSCE, OSPE

17.	Define Urinary tract infections along with their evaluation and treatment	IL	BCQS, OSCE, OSPE
18.	Discuss the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of chronic renal failure	IL	BCQS, OSCE, OSPE
19.	Describe the clinical features, diagnostic tests, and treatment of post streptococcal glomerulonephritis	IL	BCQS, OSCE, OSPE
20.	Understands the relationship between the various clinical presentations of intrinsic renal disease and their underlying cause.	IL/ SGD	BCQS, OSCE, OSPE
21.	Describe the etiology, pathogenesis, clinical features, diagnostic tests, and treatment of Nephrotic syndrome	IL	BCQS, OSCE, OSPE
22.	Discuss the evaluation and treatment of folic acid, Vitamin A, B1, B2 and B12 deficiency	IL	BCQS, OSCE, OSPE
23.	Understand the basis of metabolic acidosis and lactic acidosis.	IL	BCQS, OSCE, OSPE
24.	Discuss the approach and management of dehydration and shock.	IL	BCQS, OSCE, OSPE
25.	Discuss the approach to diagnose and manage electrolyte imbalance.	IL/ SGD	BCQS, OSCE, OSPE

#### TABLE OF SPECIFICATION PERIODONTOLOGY

TOPICS	BCQs	SEQs
Cross contamination and cross-infection control protocol		1
The Anatomy, structure and functions of Periodontal Tissues/The normal periodontium	1	
Oral Bio film and Calculus	1	1
Periodontal microorganism		
Pathogenesis of Plaque associated Periodontal disease		
Etiology and susceptibility in Periodontal Disease -Local risk factors.	1	1
Etiology and susceptibility in Periodontal Disease -Systemic risk factors for periodontal diseases		
Instruments use in periodontal therapy-classification	1	
Instruments use in periodontal therapy-handling, grasping, finger rests, maintenance	1	
Chair position, patient and dentist position-ergonomics	1	
Identification and diagnosis of periodontal diseases in general dental practice- Basic Periodontal Examination (BPE)	1	

Record of periodontal Examination/periodontal charting		
Radiographic aids in the diagnosis of periodontal disease	1	
Initial Periodontal Therapy/non-surgical periodontal therapy in general dental practice-	1	1
Oral hygiene Motivations for plaque control and periodontal care		
Initial Periodontal Therapy: Mechanical and chemical supra- gingival plaque control,		
Sonic and ultrasonic scaling techniques and methods	1	
Subgingival scaling, root planning, and curettage		
Local delivery of antibiotics	1	
Systemic Chemotherapeutic Agents		
Maintenance in Periodontal therapy.		
Gingivitis – Clinical features	1	1
Acute gingival infections	1	
Desquamative gingivitis		
Gingival enlargement	1	
Gingival recession	1	
Gingival diseases in childhood	1	
The periodontal pocket		
Radiographic Examination of Bone loss, pattern of Bone loss, and Periodontal pockets	1	
Chronic Periodontitis		
Aggressive Periodontitis	1	
Necrotizing Periodontal disease	1	
Periodontal abscess	1	
Halitosis/Breath Malodor causes and management	1	
periodontal diseases in female patient	1	
Restorative and periodontal interrelationship	1	
Endodontics and Periodontics interrelationship	1	
Orthodontics and Periodontics interrelationship	1	
Periodontal disease as a risk for systemic disease	1	
Periodontal treatment of medically compromised patients		
Treatment of periodontal emergencies		
General principle of periodontal surgery		1
Periodontal Pocket Irradiation/periodontal flap technique for pocket therapy	1	
Periodontal surgical therapy-periodontal flap surgery	1	
Periodontal surgical therapy- Periodontal surgical technique (gingival curettage, gingivectomy)		
Periodontal dressing	1	
Treatment of Gingival enlargement		
Periodontal plastic and aesthetic surgery/Muco-gingival Therapy/ -introduction		
Periodontal plastic and aesthetic surgery- therapy to correct marginal tissue recession – flap procedures		

Periodontal plastic and aesthetic surgery- therapy to correct marginal tissue recession – Grafts		
Periodontal plastic and aesthetic surgery- Therapy to Correct Excessive Gingival Display -Surgical crown lengthening		
Periodontal plastic and aesthetic surgery- Frenectomy and Frenotomy	1	1
Periodontal Regenerative and Reconstructive Therapy- Introduction	1	
Periodontal Regenerative and Reconstructive Therapy-Flap Techniques		
Periodontal Regenerative and Reconstructive Therapy	1	
Ridge Augmentation Procedures		
Treatment of Furcation Involved teeth	1	
Supportive periodontal therapy/Maintenance in periodontal surgical therapy	1	
Trauma from occlusion/periodontal response to external forces		
Periodontal splinting		
<b>TOTAL</b>	<b>35</b>	<b>08</b>

**CLINICAL SUPERVISION SCHEDULE OF ORAL MEDICINE AND DIAGNOSIS MODULE**

<b>WEEK 1: HISTORY &amp; CLINICAL EXAMINATION (H&amp;E)</b>		
<b>Day</b>	<b>Task</b>	<b>Name of Facilitator</b>
1	<ul style="list-style-type: none"> <li>• Orientation of Dental Unit</li> <li>• Introduction of History form</li> <li>• Importance of History taking</li> <li>• Demonstration on history taking</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. Asma Anwer
2	<ul style="list-style-type: none"> <li>• Introduction of Clinical Examination form</li> <li>• Importance of Clinical Examination &amp; its sequence</li> <li>• Demonstration on Clinical Examination</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. M Aqeel Aslam
<b>WEEK 2: INVESTIGATIONS</b>		
1	<ul style="list-style-type: none"> <li>• Requirements &amp; Importance of Investigations</li> <li>• Types of Investigations</li> <li>• Interpretation of various blood investigations</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. M Aqeel Aslam
2	<ul style="list-style-type: none"> <li>• Introduction to periapical &amp; OPG radiographs</li> <li>• Explanation of terms of Radiolucency &amp; Radiopacity</li> <li>• Structures notices in radiograph</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. Fatima
<b>WEEK 3: DIAGNOSIS &amp; FACIAL PAIN</b>		
1	<ul style="list-style-type: none"> <li>• Introduction, Explanation and importance of terms</li> <li>• Differential diagnosis, Provisional diagnosis and</li> <li>• Definitive diagnosis</li> <li>• Road map for establishing Definitive diagnosis</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. M Aqeel Aslam
2	<ul style="list-style-type: none"> <li>• Causes of Odontogenic &amp; Non-odontogenic pain</li> <li>• Management of handling patients with pain</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. Sajid Ali
<b>WEEK 4: FACIAL SWELLING &amp; ULCERS</b>		

<b>1</b>	<ul style="list-style-type: none"> <li>• Introduction to facial asymmetry</li> <li>• Types, causes and management of facial swelling</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. Asma Anwar
<b>2</b>	<ul style="list-style-type: none"> <li>• Introduction to Oral ulceration</li> <li>• Types, causes and management of Oral ulceration</li> <li>• Management of Premalignant and Malignant Lesions</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. Sajid Ali
<b>WEEK 5: LYMPHATICS &amp; TMJ</b>		
<b>1</b>	<ul style="list-style-type: none"> <li>• Discuss Lymphatic system and its importance</li> <li>• Discuss various causes of Cervical Lymphadenopathy</li> <li>• Examination of Cervical lymph nodes</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. Asma Anwar
<b>2</b>	<ul style="list-style-type: none"> <li>• Discuss normal mouth opening and its importance</li> <li>• Discuss causes and management of Trismus</li> <li>• Examination of TMJ and its muscles</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. Narmeen Irfan
<b>WEEK 6: FACIAL NEUROSENSORY</b>		
<b>1</b>	<ul style="list-style-type: none"> <li>• Discuss Neurosensory supply of face</li> <li>• Discuss Neurosensory supply of Oral Cavity</li> <li>• Discuss the local anesthesia utilization</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. M Aqeel Aslam
<b>2</b>	<ul style="list-style-type: none"> <li>• Examination of Facial nerve</li> <li>• Examination of the Trigeminal nerve</li> <li>• Practice on patients using H&amp;E proforma</li> </ul>	Dr. Sajid Ali
<b>WEEK 7: ASSESSMENT</b>		

## CLINICAL SUPERVISION SCHEDULE OF OPERATIVE MODULE

<b>WEEK 1:</b> <b>ORIENTATION, INFECTION CONTROL PROTOCOL, DENTAL CARIES, INSTRUMENTS USED IN OPERATIVE DENTISTRY</b>		
<b>Day</b>	<b>Task</b>	<b>Name of Facilitator</b>
1	Orientation regarding OPD tasks and student armamentarium Demonstration on Infection Control Protocol & Disposal of Waste, History Taking Performance of history taking by students	Dr.Shuja Aslam
2	Demonstration on Clinical Examination, Dental Caries Detection, ICDAS Coding of Dental Caries Practice by students	Dr.Asma
3	Instruments Identification & Clinical Handling	Dr.Priyanka
4	Dental Caries - Risk Assessment Practice by students	Dr.Asma
5	Orientation regarding OPD tasks and student armamentarium Demonstration on Infection Control Protocol & Disposal of Waste, History Taking Practice of history taking by students	Dr.Shuja Aslam
<b>WEEK 2:</b> <b>PATIENT COUNSELING, DENTAL CARIES PREVENTION, FORMULATION OF PROBLEM LIST AND TREATMENT PLAN IN SEQUENCE, CHAIR POSITIONING, LINER AND BASE MATERIALS</b>		
<b>Day</b>	<b>Task</b>	<b>Name of Facilitator</b>
1	Patient Counseling & Communication for Dental Caries Prevention Practice	Dr. Asad Tareen
2	Formulation of Problem List & Treatment Plan in Sequence Practice	Dr.Shuja Aslam
3	Patient & Operator Position for Operative Dentistry Procedure Practice	Dr.Asma
4	Clinical Handling, & Application of Liner & Base Materials Practice	Dr. Saima
<b>WEEK 3:</b> <b>CLASS 1 AND 2 AMALGAM CAVITY PREPARATION AND RESTORATION, RADIOGRAPH TAKING, MATRIX AND WEDGE PLACEMENT</b>		
<b>Day</b>	<b>Task</b>	<b>Name of Facilitator</b>
1	Demonstration on Class I Amalgam Cavity Preparation & Restoration	Dr. Asma

	Practice	
2	Demonstration on Class II Amalgam Cavity Preparation & Restoration Practice	Dr.Shuja Aslam
3	Technical & Clinical Competency in Taking Radiograph for Dental Caries Practice	Dr.Priyanka
4	Matrix Application & Wedge Placement (Tofflemire, Ivory, & Sectional Matrix) Practice	Dr. Saima

**WEEK 4:**

**RUBBER DAM APPLICATION, RETRACTION CORD AND OTHER METHODS OF ISOLATION,CLASS 1 AND 2 COMPOSITE RESTORATIONS**

Day	Task	Name of Facilitator
1	Demonstration on Rubber Dam Application Practice	Dr.Asma
2	Demonstration on use of Retraction Clamp, Retraction Cord & Other Methods for Access & Isolation of Class V Cavity Practice	Dr. Priyanka
3	Demonstration on Class I Composite Practice	Dr. Asma
4	Demonstration on Class II Composite Practice	Dr.Saima

**WEEK 5:**

**FINISHING AND POLISHING OF COMPOSITE RESTORATION, CLASS 3,4, AND 5 COMPOSITE CAVITY PREPARATION AND RESTORATION**

Day	Task	Name of Facilitator
1	Demonstration on finishing & polishing of composite restoration Practice	Dr.Asad Tareen
2	Demonstration on class III & class IV Cavity Preparation Practice	Dr. Asma
3	Demonstration on composite Restoration with Incremental Technique Practice	Dr. Shuja Aslam
4	Demonstration on class V cavity preparation & restoration Practice	Dr.Saima

**WEEK 6:**

**CLASS 6 CAVITY PREPARATION AND RESTORATION,PIT AND FISSURE SEALANTS,EVALUATION OF FAULTS IN RESTORATIONS AND ITS MANAGEMENT**

Day	Task	Name of Facilitator

1	Class VI Cavity Preparation & Restoration Practice	Dr. Saima
2	Technique for Pits & Fissure Sealant Application Practice	Dr. Priyanka
3	Clinical & Radiographic Evaluation of Faults in Dental Restorations & Its Management Practice	Dr. Asma
4	Completion and signing of logbooks	Dr. Shuja Aslam and Dr. Asad Tareen
<b>WEEK 7: PSYCHOMOTOR AND ASSESSMENT</b>		
Day	Task	Name of Facilitator
1	Performing endodontics on patients	Dr. Saima
2	Performing endodontic on patients	Dr. Asma
3	Completion and signing of logbooks	Dr. Shuja Aslam and Dr. Asad Tareen
4	Presentations	Dr. Asad Tareen
5	Posting test	Dr. Shuja Aslam and Dr. Asad Tareen

<b>MUHAMMAD DENTAL COLLEGE</b> <b>PRE CLINICAL &amp; CLINICAL SUPERVISION SCHEDULE</b>		
<b>Name of the Clinical Department</b>	<b>Prosthodontic</b>	
<b>Year</b>	<b>Third Year BDS</b>	
<b>WEEK 1: Orientation</b>		
<b>Day</b>	<b>Task</b>	<b>Name of Facilitator</b>
1	Orientation regarding OPD tasks, armamentarium, basic terminologies, demonstration on history and examination	Dr Atif Jawad
2	Logbook discussion	Dr Champa
<b>WEEK 2: Impression</b>		
<b>Day</b>	<b>Task</b>	<b>Facilitator</b>
1	Primary impression and cast formation	Dr Shagufta
2	Surveying of the cast	Dr Uzma Bashir
<b>WEEK 3: Designing of Cast Partial Denture</b>		
<b>Day</b>	<b>Task</b>	<b>Facilitator</b>
1	Clasp fabrication and rest preparation	Dr Atif Jawad
2	Wax up, vertical and horizontal jaw relation	Dr Shagufta
<b>WEEK 4: Artificial Teeth Arrangement and Denture Trial</b>		
<b>Day</b>	<b>Task</b>	<b>Facilitator</b>
1	Anterior teeth arrangement	Dr Shagufta
2	Posterior teeth arrangement	All teachers
<b>WEEK 5: Laboratory Procedures</b>		

<b>Day</b>	<b>Task</b>	<b>Facilitator</b>
1	Flasking, dewaxing, finishing and polishing	Dr Rehan
2	Insertion of denture and postinsertion instructions	All teachers
<b>WEEK 6: Follow up of patient</b>		
<b>Day</b>	<b>Task</b>	<b>Facilitator</b>
1	Follow up of patient	Dr Atif Jawad
2	Supervised clinical and laboratorial work	All teachers
<b>WEEK 7: Clinical Supervision</b>		
<b>Day</b>	<b>Task</b>	<b>Facilitator</b>
1	Supervised clinical and laboratorial work	Dr Atif Jawad
2	Supervised clinical and laboratorial work	All teachers
<b>WEEK 8: Clinical Practice Under Supervision</b>		
<b>Day</b>	<b>Task</b>	<b>Facilitator</b>
1	Supervised clinical and laboratorial work	Dr Champa
2	Supervised clinical and laboratorial work	All teachers
<b>WEEK 9: Clinical Assessment</b>		
<b>Day</b>	<b>Task</b>	<b>Facilitator</b>
1	Clinical and laboratorial work	Dr Shagufta
2	Supervised clinical and laboratorial work	Dr Champa

## LEARNING RESOURCES THIRD YEAR BDS

<b>RECOMMENDED BOOKS THIRD YEAR BDS</b>		
<b>OMFS</b>	<b>PROSTHODONTICS</b>	<b>OPERATIVE DENTISTRY</b>
<ul style="list-style-type: none"> <li>○ Handbook of Local Anesthesia – Stanley F. Malamed, 7th Edition</li> <li>○ Local Anesthesia in Dentistry – Geoffrey L. Howe, 5th Edition</li> <li>○ Contemporary Oral and Maxillofacial Surgery – Hupp, Tucker &amp; Ellis, 7th Edition</li> <li>○ Textbook of Oral and Maxillofacial Surgery – S. M. Balaji, 1st Edition</li> <li>○ Medical Emergencies in Dentistry – Scully</li> </ul>	<ol style="list-style-type: none"> <li>1. Clinical Removable Partial Denture, Stewart Fourth Edition</li> <li>2. Removable partial Denture Prosthodontics, Mccrakens-13<sup>TH</sup> Edition</li> </ol>	<ol style="list-style-type: none"> <li>1. Joseph R Evans John H Wilke. Atlas of Operative Dentistry: Preclinical and clinical procedures. Quintessence Books Publishing Co.</li> <li>2. Richard L Kahn, Pinkerton RJ, Kagihara LE. Fundamentals of Preclinical Operative Dentistry.</li> <li>3. The Art &amp; Science of Operative Dentistry by Sturdurant.</li> <li>2. Pickardards Manual of Operative Dentistry by EAM Kidd.</li> <li>3. Fundamentals of Operative Dentistry by Schwartz</li> <li>4. Dental Restorative Materials – Craig</li> <li>5. Textbook of Operative Dentistry by Vimal K Sikri</li> </ol>

RECOMMENDED BOOKS THIRD YEAR BDS			
PERIODONTOLOGY	ORAL MEDICINE	GENERAL MEDICINE	GENERAL SURGERY
<ol style="list-style-type: none"> <li>1. Neman and Carranza's Clinical Periodontology, 13<sup>th</sup> edition.</li> <li>2. Linda's Clinical Periodontology and Implant Dentistry</li> </ol>	<ul style="list-style-type: none"> <li>• William R.Tyldesley, Oral Medicine, 5<sup>th</sup> Edition</li> <li>• Lester W. Burkett, Oral Medicine, 11<sup>th</sup> Edition</li> <li>• Roderick A.Cawson, Oral Medicine, 8<sup>th</sup> Edition</li> <li>• Crispian Scully, Oral Medicine, 3<sup>rd</sup> Edition</li> </ul>	<ol style="list-style-type: none"> <li>1. Parveen Kumar, Kumar and Clark's Clinical Medicine, 8<sup>th</sup> Edition</li> <li>2. Maxine A Papadakis, Current Medical Diagnosis and Treatment, Edition 2016 8<sup>th</sup> Edition</li> </ol>	<ol style="list-style-type: none"> <li>1. Short Surgery Practice by Bailey &amp; Love. 27<sup>th</sup> Edition</li> <li>2. An Introduction to the Symptoms &amp; Signs of Surgical Diseases by Norman S Bros</li> <li>3. Manual of Clinical Surgery by S. Das</li> </ol>
RECOMMENDED E-BOOKS THIRD YEAR BDS			
<ol style="list-style-type: none"> <li>1. Clinical periodontology Implant Dentistry by Lindhe</li> </ol>	<ol style="list-style-type: none"> <li>1. Text Book of Oral Medicine ,Oral Diagnosis and Oral Radiology by Ongole</li> </ol>	<ol style="list-style-type: none"> <li>1. Atlas of Oral Microbiology by Zhou</li> <li>2. Oral Pathology Clinical Pathologic Correlation by Regezi</li> <li>3. Oral Pathology by Soames, 4<sup>th</sup> edition.</li> <li>4. Oral Radiology by Eric Waites</li> </ol>	
<b>DEPARTMENT OF COMMUNITY &amp; PREVENTIVE DENTISTRY</b> <ol style="list-style-type: none"> <li>1. Burt, B. &amp;Eklund, S. (2005). Dentistry, Dental Practice &amp; The Community. 6th ed. Saunders</li> <li>2. SS Hiremith, (2009), Textbook of Preventive and Community Dentistry</li> <li>3. Daly B, Watt R, Batchelor P &amp; Treasure E (2013) Essential Dental Public Health, Oxford University Press.</li> <li>4. Smeeton Nigel (2012) Dental Statistics Made Easy, 2<sup>nd</sup> edition, Radcliffe Publication</li> <li>5. Essential of Preventive and Community Dentistry, Soben Peter (Latest Edition)</li> <li>6. Textbook of Preventive and Community Dentistry Joseph John (Latest Edition)</li> </ol>		<b>DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY</b> <ol style="list-style-type: none"> <li>1. Handbook of Local Anesthesia – Stanley F. Malamed, 7th Edition</li> <li>2. Local Anesthesia in Dentistry – Geoffrey L. Howe, 5th Edition</li> <li>3. Contemporary Oral and Maxillofacial Surgery – Hupp, Tucker &amp; Ellis, 7th Edition</li> <li>4. Textbook of Oral and Maxillofacial Surgery – S. M. Balaji, 1st Edition</li> <li>5. Medical Emergencies in Dentistry – Scully</li> </ol>	



**MUHAMMAD DENTAL COLLEGE**  
**ACADEMIC CALENDAR AND SEQUENCE OF CONTENT-2026**  
**OF MODULAR CURRICULUM**  
**THIRD YEAR BDS-2023-BATCH-V**

MODULE DEPARTMENT	9-week rotation in each clinical department	MONDAY TO THURSDAY IN GROUPS (LECTURES AND CLINICAL POSTINGS)											
		First Posting		Second Posting			Third Posting			Fourth Posting			
Nine Weeks		Nine Weeks			1 week	4 weeks	Nine Weeks		Nine Weeks				
12-01-26	13-03-26	25-03-26	22-05-2026				22-06-2026	21-08-2026	25-08-26	23-10-2026			
Oral Medicine, Oral diagnosis & Oral Radiology, Exodontia, Pain & Anxiety Control (Oral Medicine & OMFS)	A	FIRST POSTING COMPUTER-BASED TEST AT MMC BCQS & OSPE ON TUESDAY 24-03-2026		B	SECOND POSTING COMPUTER-BASED TEST AT MMC (BCQS & OSPE) ON MONDAY 29-06-2026		Eid ul Fitr Holidays 14-03-26 till 23-03-2026	Eid ul Azha & Summer Holidays 23-05-2026 till 21-06-2026	C	THIRD POSTING COMPUTER-BASED TEST AT MMC ON MONDAY (BCQS & OSPE) 24-08-2026		D	
Periodontal Disease	B			C					D	A			
Removable Prosthesis & Stomatognathic System-I (Prosthodontics)	C			D					A	B			
Cariology & Dental Restoration (Operative Dentistry)	D			A					B	C			
Parallel Modules	Whole year with Module	PARALLEL MODULES											
Community & Public Health Services		Whole Class from 10:30- 11:30 from Monday to Thursday Community Field Visit (Whole Class every 2 <sup>nd</sup> and 5 <sup>th</sup> Saturday- 8:00 AM to 4:00 PM)											
Systemic Disease Management		General Medicine & General Surgery- Whole Class (In 2 groups) is on every Friday from 8:00 am to 4:00 PM, and General Medicine on Monday (8:00 to 10:30), General Surgery (Tuesday 11:30 to 2:00 pm), Research & General Education (Monday (11:30 to 16:00) & Tuesday (2:30 -4:00)											
Academic Schedule-2026	First day of Classes:			12-January-2026		Last day of Classes:			26-October-2026				
	Exam Preparation Leaves			27-October-2026 till 22 <sup>nd</sup> - November-2026		Annual Exams-2025			23 <sup>rd</sup> -November-2026 till 18 <sup>th</sup> December-2026				
	Break			19-December-2026 till 3 <sup>rd</sup> - January-2027		Commencement of New Session:			04-January-2027				

- Prepared by: Dr Kiran Fatima

Department of Dental Education-Muhammad Dental College-on: 05<sup>th</sup>-January-2026