LIAQUAT COLLEGE OF MEDICINE AND DENTISTRY
DEPARTMENT OF HEALTH PROFESSIONS EDUCATION
COLLEGE OF DENTISTRY

STUDY GUIDE – 2025

Second Year BDS

Batch- XXV (25)

Compiled by:

Department of Health Professions Education
College of Dentistry

Dr. Sabaa Shahid	Incharge DHPE
Dr. Ayesha Khurram	Lecturer DHPE
Mr. Moiz Majid	Administrative Officer DHPE

"Heartfelt gratitude to all departments for supporting and collaborating efficiently for compiling of this study guide"

CONTENTS

What is Study Guide, Vision, Mission	1
Program Competencies	2
Program Learning Objectives	3
Program Outcomes	4 – 5
Second Year BDS Faculty & Administration	6
Curriculum Committee	7
Time Table	8
Academic Calendar	9
Holiday Calendar	10
Event Calendar	11
Learning Outcomes	12 – 15
Term I	16 – 47
Term II	48 – 76
Term III	77 – 110
Term IV	111 – 139
Guide to Clinical Skill Lab	140 – 141
PDC Skill Lab	142
Code of Conduct	143 – 154
Recommanded Books	155
Examination	156
Scheme of Examination	157
Marks Distribution	158
Internal Evaluation	159
Instruction for the Students	160 - 161

How is Study guide going to help you?

- A study guide serves as a comprehensive tool for both learners and facilitators to enhance learning experience by offering direction, organizing academic information, and identifying essential resources Its primary goal is to optimize individual academic outcomes by providing:
  - Clear details on the academic calendar and administrative procedures for effective communication and support.
  - Defined learning objectives aligned with teaching methodologies, and assessment strategies for each subject to guide students towards their educational targets.
  - Accessible learning resources such as textbooks, and supplementary materials.
  - Guidance on continuous evaluation (internal evaluation) and important instructions.

Vision:

The vision of LCMD is to be an outstanding institution that produces health care providers that are exemplary. Community based, and in alignment with the National Health Policy of Pakistan.

Mission Statement (COD):

To produce outstanding, compassionate, and skillful graduates in the field of dentistry, who practice evidence-based dentistry, professionalism, leadership, advocacy, social responsiveness and are life-long learners.

Program Competencies:

The LCMD BDS program competencies are aligned with those of PMDC's competencies for dental graduates.

Program Learning Objectives

- Demonstrate a high level of clinical proficiency in performing a wide range of dental procedures including diagnosis, treatment planning and execution of dental treatments
- Provide patient-centered care, showing empathy, compassion and respect for patients' needs and concerns, and effectively communicate treatment options and plans
- Adhere to the highest ethical standards in dental practice, maintaining integrity, honesty and confidentiality while fostering trust and professionalism in their interactions with patients and
- Actively engage in their local communities to promote oral health awareness, provide dental care to underserved populations, and contribute to the betterment of oral healthcare on a broader scale
- Exhibit a commitment to lifelong learning by actively engaging in continuing education, staying current with advancements in dental science and technology, and seeking opportunities to enhance their skills
- Assume leadership roles with in their dental practices or in dental organizations, as well as collaborate effectively with other healthcare professionals to ensure comprehensive patient care
- Critically evaluate and apply scientific research to their clinical practice ensuring evidence-based decision making and continuous improvement in patient care
- Possess basic knowledge and skills in practice management, including financial management, regulatory compliance, and ethical billing practices
- Demonstrate strong communication skills, both with patients and within the dental team, fostering effective teamwork and patient education
- Strive to achieve positive patient outcomes, including improved oral health, patient satisfaction, and the prevention or early detection of dental diseases

Program Outcomes	
1.	Demonstrate proficiency in the use of dental instruments and equipment, required for dental procedures.
2.	Identify common dental conditions and diseases.
3.	Formulate comprehensive treatment plans for patients, considering their oral health status and individual needs.
4.	Develop the ability to prioritize and sequence dental treatments effectively, considering both immediate and long-term oral health goals.
5.	Provide compassionate and empathetic care, acknowledging the physical and emotional needs of patients.
6.	Implement the concept of informed consent, ensuring that patients are well-informed about their treatment options and have the opportunity to provide their consent or refusal.
7.	Engage in self-reflection and continuous improvement of their patient-centered care and communication skills
8.	Consistently make ethical decisions in their interactions with patients, colleagues, and the broader dental community.
9.	Maintain strict patient confidentiality, respecting the privacy and security of patient information and medical records.
10.	Demonstrate appropriate professional boundaries in their relationships with patients and colleagues.
11.	Demonstrate the ability to assume leadership roles within dental practices or dental organizations.
12.	Provide ethical and moral leadership, upholding the highest standards of integrity and professionalism in their roles.
13.	Commit to ongoing professional development and leadership training to refine their leadership and collaboration skills over time.
14.	Develop a strong commitment to lifelong learning, recognizing that dentistry is a dynamic field that requires ongoing education.
15.	Stay informed about the latest advancements in dental science, technology, and treatment options.
16.	Actively participate in continuing education programs, workshops, and seminars to stay current with best practices and evolving standards in dentistry.
17.	Keep up-to-date with advances in dental technology, and effectively and safely integrate these tools into their practice.
18.	Actively participate in and lead community outreach programs and events aimed at promoting oral health awareness, preventive care, and healthy oral hygiene practices.
19.	Proficient in delivering effective oral health education to community members of all ages, focusing on prevention and maintaining good oral hygiene practices.
20.	Aim for long-term community impact by establishing sustainable programs, initiatives, or partnerships that continue to promote oral health awareness and access to care.
21.	Engage in self-reflection and evaluation of their community engagement efforts, seeking continuous improvement and increased effectiveness.
22.	Develop strong research literacy, which includes the ability to locate, critically evaluate, and understand scientific literature relevant to dentistry.
23.	Consistently make clinical decisions based on the best available scientific evidence, using research findings to guide patient care.
24.	Integrate evidence-based findings into their clinical practice, adapting treatment plans and approaches as new research emerges.
25.	Practice research ethics, including the responsible conduct of research, informed consent, and the protection of human subjects in dental research.
26.	Engage in lifelong learning by continuously updating their knowledge of research methodologies and staying informed about the latest research trends in dentistry.

27.	Demonstrate proficiency in managing the financial aspects of a dental practice, including budgeting, financial planning, and expense control.
28.	Practice intricacies of billing and coding for dental services, ensuring accuracy and compliance with insurance and regulatory requirements.
29.	Well-versed in dental practice regulations, including those related to licensure, accreditation, and quality assurance.
30.	Commit to ethical billing practices, avoiding overbilling or unnecessary procedures and ensuring transparency in financial transactions with patients.
31.	Proficient in communicating effectively with patients, using clear and empathetic language to explain diagnoses, treatment options, and post-treatment care instructions.
32.	Excel in communicating and collaborating with other members of the dental team, including dental assistants, hygienists, and administrative staff, to ensure seamless patient care.
33.	Educate patients about oral health, prevention, and treatment options in a clear and understandable manner, using various educational materials and tools.
34.	Prioritize and demonstrate their commitment to improving the oral health of their patients by providing evidence-based and effective dental care.
35.	Excel in the prevention and early detection of dental diseases, promoting regular check-ups, screenings, and preventive measures to minimize the impact of oral health issues.
36.	Prioritize patient comfort and satisfaction, ensuring a positive and comfortable experience during dental procedures.
37.	Actively promote preventive education and awareness to help patients understand the importance of maintaining good oral hygiene and the prevention of dental diseases

SECOND YEAR BDS FACULTY & ADMINISTRATION

Department	Faculty Name	Designation	Email Address
Community Dentistry	Dr. Anjum Fahad	Head Of Department, Assistant Professor	anjum.younus@duhs.edu.pk
	Dr. Munawar Ul Haque	Assistant Professor	gogidentist@gmail.com
	Dr. Sara Maqbool	Demonstrator	sarahmalik.96.edu.pk@gmail.com
	Dr. M. Hassaan Sadiq	Demonstrator	hassaansadiq1997@hotmail.com
Dental Materials	Dr. Asad Farooq	Head Of Department, Associate Professor	drasadfarooq@gmail.com
	Dr. Zara Mehreen	Senior Lecturer	zaralarayb@hotmail.com
	Dr. Rizwan Hassan	Demonstrator	srhassan1994@gmail.com
	Dr. Ayesha Bashir Malik	Demonstrator	ayeshabm96@gmail.com
	Dr. Raffat Aziz	Demonstrator	raffataziz05@gmail.com
	Dr. Rida Faiz	Demonstrator	rf19953@gmail.com
Pharmacology	Prof. Dr. Asiya Rehman	Head Of Department,	asya_rehman@yahoo.com
	Dr. Arsalan Shahid	Senior Lecturer	arsalanshahid647@gmail.com
	Dr. Ashhad Khan	Demonstrator	khanashad20@gmail.com
Pathology	Dr. Shahid Zafar	Head Of Department, Associate Professor	shahidzaff@yahoo.com
	Dr. Kanwal Naz	Demonstrator	drkanwalnaz@gmail.com
	Dr. Noor Ul Ain Khairuddin	Demonstrator	dr.noorulainarsalan@gmail.com
Junior Operative Dentistry	Prof. Dr Naheed Najmi	Head Of Department	naheednajmi16@gmail.com
	Dr. Tazeen Zehra	Assistant Professor	tazeenzehra@gmail.com
	Dr. Hira Faraz	Senior Registrar	hirafaraz25@gmail.com
	Dr. Uzma Yasmeen	Registrar	dr.uzma8691@gmail.com
	Dr. Sareema Ahmed	Registrar	Sareema.ahmadd@gmail.com
Junior Prosthodontics	Prof. Dr. Uzma Zareef	Head Of Department	uzmaz_3@hotmail.com
	Prof. Dr. Irum Munir Raja	Professor	drirumraja@yahoo.com
	Dr. Kamran Parvez	Assistant Professor	dr.kamranpervez@gmail.com
	Dr. M. Anas Kamran	Registrar	anaskamran97@gmail.com
	Dr. Mariam Umoodi	Registrar	dr_mariamalamoudi@outlook.com
	Dr. Tooba Aziz	Registrar	toobaaziz36@gmail.com
Student Affairs	Prof. Dr. Irfan Ashraf	Head Of Department	Irfan.ashraf@lcmd.edu.pk student.affairs@lcmd.edu.pk
	Dr. Arifa Haque	Coordinator	arifahaque06@gmail.com
Administration	Mr. M. Shahbaz Khan	Assistant Manager	admin@lcmd.edu.pk shahbaz.khan@lcmd.edu.pk
Examination	Prof. Dr. Irfan Ashraf	Controller Examination - COD	examinationlcmd@gmail.com
	Dr. Fauzia Perveen	Deputy Controller - COD	
	Dr. Laraib Hameed	Coordinator - COD	
DHPE	Dr. Sabaa Shahid	Incharge	dhpelcmd@gmail.com
	Dr.Ayesha Khurram	Lecturer	ayesha.khurram14@gmail.com

CURRICULUM COMMITTEE – SECOND YEAR BDS	
Prof. Dr. Nusrat Zareen **Chairperson** Curriculum Committee Basics Sciences	
Dr. Munnawar Ul Haque **Secretary** Curriculum Committee Basics Sciences	
Dr. Muhammad Sarmad Khan **Coordinator** Curriculum Committee Basics Sciences	
Members:	
Prof. Dr. Asiya Rehman	Professor - Pharmacology
Prof. Dr. Saad Usmani	Professor - Anatomy
Dr. Shahid Zafar	Associate Professor - Pathology
Dr. Asad Farooq	Associate Professor - Dental Materials
Dr. Anjum Fahad	Assistant Professor- Community Dentistry
Dr. Syed Abul Faraz	Assistant Professor - Oral Biology
Dr. Fauzia Perveen	Assistant Professor – Biochemistry
Dr. Sabaa Shahid	Incharge - DHPE-COD
Coopted members:	
Prof. Dr. Irfan Ashraf	HOD-Student affairs & Examination
Dr. Asma Shahid	Incharge - QEC-COD
Representatives from Junior Operative Dentistry & Junior Prosthodontics	
Class Representatives from 1st & 2nd Year BDS	
Email Address: ccb.bs@lcmd.edu.pk	

LIAQUAT COLLEGE OF MEDICINE AND DENTISTRY
DEPARTMENT OF HEALTH PROFESSIONS EDUCATION
COLLEGE OF DENTISTRY

TIME TABLE

LIAQUAT COLLEGE OF MEDICINE & DENTISTRY

TIME TABLE FOR SECOND PROFESSIONAL BDS (BATCH – 25)

17th Feb 2025 TO 21st Feb 2025 (WEEK-1) TERM -1

DARUL SEHAT HOSPITAL

TIME / DAY	8:30 - 9:20	9:20 - 10:10	Tea Break 10:10AM - 10:30AM	10:30 – 11:20	11:20 – 12:10	12:10 – 1:00	Lunch & Prayer Break 1:00PM - 1:55PM	1:55 – 04:00	
MONDAY 17-02-25	**PATHOLOGY**	**JUNIOR OPERATIVES**		**DENTAL MATERIALS**	**PHARMACOLOGY**	**COMMUNITY DENTISTRY**		**TUTORIAL & PRACTICAL**	
	Introduction To Pathology **Dr. Shahid Zafar**	Patient Protocol And Pre-Operative Assessment **Dr. Uzma Yasmeen**		Science Of Dental Materials **Dr. Asad Farooq**	Introduction To Pharmacology **Prof. Dr. Asya Rehman**	Introduction Of Community Dentistry **Dr. Anjum Fahad**		Pharmacology - A Pathology - B Dental Materials – C Community Dentistry – D Jr. Prostho – E	
TUESDAY 18-02-25	**PATHOLOGY**	**DENTAL MATERIALS**		**MICROBIOLOGY**	**COMMUNITY DENTISTRY**	**PHARMACOLOGY**		**PRACTICAL**	
	Adaptation And Its Types **Dr. Shahid Zafar**	Gypsum Products Of Dental Casts **Dr. Asad Farooq**		Introduction To Microbiology **Prof. Dr. Rizwana**	Ethics In Dental Care 1 **Dr. Anjum Fahad**	Routes Of Administration **Prof. Dr. Asya Rehman**		Pharmacology – E Pathology – A Dental Materials – B Community Dentistry – C Jr. Prostho – D	
WEDNESDAY 19-02-25	**COMMUNITY DENTISTRY**	**PATHOLOGY**		**PHARMACOLOGY**	**DENTAL MATERIALS**			**PRACTICAL**	
	Ethics In Dental Care 2 **Dr. Anjum Fahad**	Cell Injury And Its Types **Dr. Shahid Zafar**		Pharmacokinetic I (Absorption) **Dr. Arsalan Shahid**	Properties Used To Characterize Materials **Dr. Zara Mehreen**			Pharmacology – D Pathology – E Dental Materials – A Community Dentistry – B Jr. Prostho – C	
THURSDAY 20-02-25	**PHARMACOLOGY**	**JUNIOR PROSTHETICS**		**COMMUNITY DENTISTRY**	**DENTAL MATERIALS**	**MICROBIOLOGY**		**PRACTICAL**	
	Pharmacokinetic II(Distribution) **Dr. Arsalan Shahid**	Introduction To Prosthodontics **Prof. Dr. Irum Raja**		Profession Of Dentistry And Dental Hygiene 1 **Dr. Hassaan Sadiq**	Properties Used To Characterize Materials **Dr. Zara Mehreen**	Bacterial Structure I **Dr. Shahida Kashif**		Pharmacology – C Pathology – D Dental Materials – E Community Dentistry – A Jr. Prostho-B	
FRIDAY 21-02-25	**JUNIOR OPERATIVES**	**RESEARCH**		**DENTAL MATERIALS**	**TUTORIAL/PRACTICAL**			**PAK. STUDIES**	**Patient Safety & Inf. Control**
	Review Of Dental Anatomy **Dr. Tazeen Zehra**	Literature Search **Dr. Wajida Jawaid**		Gypsum Products For Dental Casts **Dr. Asad Farooq**	Pharmacology – B Pathology – C Dental Materials – D Community Dentistry – E Jr. Operatives – A			Introduction to Pak. Studies **Dr. Sara Husnain**	Introduction to Patient Safety **Dr. Sara Husnain**

TUTORIAL / PRACTICAL

Dental Material	Introduction To Science Of Dental Materials	Dr. Rizwan Hassan
Pharmacology	Introduction To Pharmacology	Dr. Arsalan Shahid & Dr. Ashhad Khan
Community Dentistry	Tooth Numbering System / Ethics In Dental Care	Dr. Sara Maqbool / Dr. Hassaan Sadiq / Dr. Sara Amrao
Pathology	Introduction To Microbiology	Dr. Kanwal Naz
Junior Prosthodontics	Orientation And Terminologies Of Prosthodontics	Dr. Mariam Al-Umoodi

Dr. Shahid Zafar
Coordinator Second Year BDS

LIAQUAT COLLEGE OF MEDICINE AND DENTISTRY
DEPARTMENT OF HEALTH PROFESSIONS EDUCATION
COLLEGE OF DENTISTRY
ACADEMIC CALENDAR – SECOND YEAR BDS

MONTH	Feb		Mar					Apr				May				Jun					Jul
WEEK	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	5	1
CUMMALATIVE WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
DATES	17-Feb	24-Feb	3-Mar	10-Mar	17-Mar	24-Mar	31-Mar	7-Apr	14-Apr	21-Apr	28-Apr	5-May	12-May	19-May	26-May	2-Jun	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul
PATHOLOGY	Cell Injury / Inflammation / General Microbiology					RAMADAN & EID UL FITR		Inflammation/ Healing & Repair General Microbiology		TERM I	Immunology / Special Bacteriology					EID UL ADHA & SUMMER VACATIONS			Special Pathology / Specoal Bacteriology		TERM II
PHARMACOLOGY	General Pharmacology			ANS	ANS/ Autocoids			Anti Inflammatory Drugs	Anti Inflammatory Drugs		Antimicrobial drugs	Antimicrobial drugs	Antimicrobial drugs	Antimicrobial drugs	Immunomodulat or agents				Respiratory Drugs	Respiratory Drugs	
DENTAL MATERIALS	Introduction To Dental Materials/Gypsum	Gypsum	Waxes	Artificial Teeth	Investment & Refrectory Dies			Investment & Refrectory Dies			Casting		Ceramics						Metal & Alloys		
	Properties Use To Characterized Materials				Requirement Of Direct Filling Materials			Dental Amalgam			Gold & Alloys Of Noble Metals		Base Metal Alloys						Steel & Wrought Alloys		
COMMUNITY DENTISTRY	Profession of dentistry /Ethics in dentistry	Public Served By Dentistry/ Measurement of Oral Diseases	Dental Caries	Measuring Dental Caries	Periodontal Disease			Measuring Periodontal Disease/Prevention of periodontal diisease	Practice of dental public health		Oral epidemiology / Access to Dental care	Biostatistics	Research Methodology	Healthy Dental Practice/Dental workforce	Financing in dentistry/Oral health promotion				The practice of Dentistry	Revision week	
JUNIOR OPERATIVE DENTISTRY	Introduction to operative dentistry	Tooth Notation System	No Lectures	No Lectures	No Lectures			Operative Instruments	Caries diagnosis		Principles of cavity design	Class 1 cavity preparation for amalgam	class 1 cavity preparation for amalgam	Amalgam composition, advantages and disadvantage	Sterilization of endodontic instruments				Matricing in malgam restoration	Presentation session	
	Review of dental anatomy	Patient protocol and pre operative assessment						Caries classification	Caries prevention			class 1 cavity preparation for amalgam	Amalgam Classification, indications and contraidications	Sterilization and disinfection	Amalgam placement, trituration, carving and polishing in class 1 cavity				Class II amalgam restoration features of class II cavity design	Class Test/quiz	
JUNIOR PROSTHODONTICS	Introduction to Prosthodontic	Terminologies	Anatomical Landmarks of maxilla & mandible	Anatomical Landmarks of maxilla & mandible	Anatomical Landmarks of maxilla & mandible			Tongue & saliva	History & examination		History & examination	Impression materials	Primary impression	Custom tray fabrication	Secondary impression				Jaw relation	Jaw relation/ rim formation	
PAKISTAN STUDIES	Historical Perspective							Government & Politics in Pakistan			Government & Politics in Pakistan								Government & Politics in Pakistan		
COMMUNICATION SKILLS		Basic Elements Of Communication		Models of communication							Presentation skills			Assertive communication					Assertive communication		
PATIENT SAFETY & INFECTION CONTROL	Introduction to Patient Safety										Waste Management										
RESEARCH	How to perform literature search	Referencing	Writing background and rationale of the study	Writing methodology with appropriate study design	Writing methodology with appropriate study design			Questinnaire designing	Questionnaire designing		Estimating sample size	Estimating sample size	Data collection and plan for analysis	Data collection and plan for analysis	Developing consent form				Project time line and budgeting	Guidelines for filling IRB	
LeaPE	Self-Awareness:, Self-efficacy, Emotional Intelligence and Attribution style			Time Management, Self-Management & Personal Development							Honesty and Integrity			Ethics by Beauchamp and Childress					Significance of Professionalism		

MONTH	Jul				Aug				Sep					Oct				Nov				Dec					Jan			
WEEK	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4
CUMMALATIVE WEEK	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
DATES	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep	8-Sep	15-Sep	22-Sep	29-Sep	6-Oct	13-Oct	20-Oct	27-Oct	3-Nov	10-Nov	17-Nov	24-Nov	1-Dec	8-Dec	15-Dec	22-Dec	29-Dec	5-Jan	12-Jan	19-Jan	26-Jan
PATHOLOGY	TERM II	Environmental Pathology / Special Pathology/ Virology/Mycology							TERM III	SPORTS WEEK	Genetics /Nutritional Pathology/ Neoplasia / Parasitic & Protozoal Diseases							REVISION WEEK	PRE PROF. PREPARATORY LEAVE			PRE-PROF. EXAMINATION	PROF. PREPARATORY LEAVE				PROF. EXAMINATION			
PHARMACOLOGY		Anti Viral/Anti Fungal Drugs	Gastrointestinal Drugs	Endocrine Drugs	Endocrine Drugs	Cardiovascular System Drugs	Cardiovascular System Drugs	Drugs Used For Blood Disorder			Central Nervous System Drugs	Central Nervous System Drugs	Central Nervous System Drugs	Anti Protozoal & Anti Parasitic	NR Neoplastic Drugs	Anti Septic & Dental Pharmacology	Vitamins	Minerals												
DENTAL MATERIALS		Adhesives		Resin Based Filling Materials		Classification Of Impression Materials	Non Elastic Impression Materials				GIC		RMGIC		Cements Based on Phosphoric Acid	Cements Based on Organometallic Chelate	Polycarboxalate Cements													
		Synthetic Polymers		Denture Base Polymers	Denture Lining Materials	Elastic Impression Materials: Elastomers	Elastic Impression Materials : Hydrocolloids				Endodontic Materials			Biomechanics, Biomaterials, Biocompatibility		Requirement of Dental Cements	Temporary Crown & Bridge												
COMMUNITY DENTISTRY		Other Oral Conditions	Fluoride and Human Health	Dental Fluorosis/Water Fluoridation	Measuring dental fluorosis	Reading Dental Literature/EBD	Utilization of Fluoride in Caries Prevention	Revision week			Behavioural Sciences	Diet & Plaque Control	Fissure Sealants	ART	Oral Cancer	Restricting the use of tobacco	Writing Research Report	Revision											
JUNIOR OPERATIVE DENTISTRY		Class II amalgam restoration	Composite classification, indication and contraindication	Isolation in dentistry	Composite restoration: placement, finishing, polishing in class I cavity	Class II composite restoration	Class II composite restoration	Cross infection control			Composite restoration Class 4 caviaty designing	Composite isolation for anterior teeth	Pits and fissure sealants	Pits and fissure sealant	GIC: advantages, disadvantages, indications and contraindication	Features of Class V retoration	Features of Class VI cavity	Quiz Competition											
		Class II amalgam restoration	Composite restoration: composition, advantages		Matricing: composite restoration		Cross infection control	composite restoration Class III Cavity designing			Composite restoration, matricing for class III and IV			GIC compositio n and classification	Class V GIC restoration: indications	Class VI composite restoration: indication	Presenation session	Revision											
JUNIOR PROSTHODONTICS		Articulation	Teeth Selection	Flip classroom (Denture base material- acrylic)	Arrangement of artifical teeth	Arrangement of artifical teeth	Arrangement of artifical teeth	Trail Denture			Insertion	Compliants	Flip Classroom - Arrangement of teeth	Introduction of FPD	Parts of FPD	Preparation of FPD on posterior teeth	Class Test	Viva											
PAKISTAN STUDIES		Contemporary Pakistan									Contemporary Pakistan																		
COMMUNICATION SKILLS					Poster Development						Cultural Competence and sensitivity during communication																			
PATIENT SAFETY & INFECTION CONTROL		Drug Safety																												
RESEARCH		Synopsis writting	Synopsis writting	Introduction to basic biostatistics	Introduction to basic biostatistics	Data entery and coding of variable	Data entery and coding of variable	Basic concepts of discriptive statistics			Basic concepts of inferential statistics	Basic concepts of inferential statistics	Summarizing and displaying categorical data	Summarizing and displaying categorical data, (frequency tables and graphs)	Displaying scale data& the concept of normal and skewed distribution	Summarizing scale data: measure of central tendency	Summarizing scale data: measure of dispersion	Synopsis completeion											
LeaPE		Justice and equity				Privacy and confidentiality					Informed Consent in Clinical Practice			Medical Error and Negligence																

HOLIDAY CALENDAR	
Pakistan Day	23rd March, 2025
*Eid- ul -Fitr	31, 01 & 02 April 2025
Labour Day	1st May, 2025
*Eid-ul-Azha	07, 08 & 09 June 2025
*Ashura	05 & 06 July, 2025
*Chehlum	15th August, 2025
Independence Day	14th August, 2025
*Eid Milad un Nabi	5th September, 2025
Allama Iqbal Day	9th November, 2025
Quaid-e-Azam Day	25th December, 2025
*Holidays subject to sighting of Moon Note 1: All gazette holidays will be observed Note 2: Principal can make amendments in the Academic Calendar if the need arises.	

EVENT CALENDAR

S. No	EVENTS
1.	Welcome Breakfast
2.	Dental Digital Photography & Art / Literature Fest
3.	Annual Student Week (Sports, English/Urdu Debate, Qirat & Naat)
4.	14th August Celebration
5.	Defence Day Celebration
6.	Annual Picnic & Gala

NOTE - THE CALENDAR IS TENTATIVE AND IS SUBJECT TO CHANGE AS PER THE INSTRUCTIONS OF COMPETENT AUTHORITIES

LEARNING OUTCOMES

COMMUNITY DENTISTRY	
By the end of second year, BDS students will be able to:	
Knowledge:	Explain the basic concepts of community and dental public health. Demonstrate the knowledge and understanding of the concept of public health and dental public Health. Identify the determinants of health. Explain methods to eliminate inequalities in oral health. Comprehend the implications of dental public health in dentistry. Categorize Levels prevention, principles of health promotion and specific protection. Explain the community dentistry concepts about etiology, natural history and epidemiology of oral diseases.
Attitude &Skills:	Participate and display teamwork in the epidemiological designing and conducting a dental survey at schools/underserved communities/ child healthcare institutes. Sensitive to cultural differences; values diversity; shows ability to solve problems.

DENTAL MATERIALS	
By the end of second year, BDS students will be able to	
Knowledge & Skills	Explain properties, composition, and manipulation of materials used in the provision of dental treatments along with origin, nature, chemistry, effects, and uses of all materials used in the processing, fabrication and provision of dental restorations including aspects of toxicity and safety of these materials for staff and patients.
Skills:	Collaborate with group members in handling and performing various practical. Show respect to seniors and juniors when they are talking. participates in class discussion; questions new concepts; knows & practices safety rules

PHARMACOLOGY	
By the end of second year, BDS students will be able to:	
Knowledge:	Discuss indications, contraindications; interactions, allergies and adverse reactions of commonly used drugs, use of appropriate drugs in disease with consideration to its efficacy, safety for individual and mass therapy needs.
Skills:	Prescribe drugs for common dental and medical ailments; appreciate adverse reactions and drug interactions of commonly used drugs.
Attitude:	Show self-reliance when working independently; cooperate in group activities and revise judgments.

PATHOLOGY	
By the end of year, second prof students will be able to:	
Knowledge:	Explain pathological changes at macroscopic and microscopic levels, capabilities and limitations of morphological Pathology and its contribution to dentistry. Elaborate various infectious diseases and lesions of the human body. Describe various methods of Sterilization and disinfection.
Skills:	Practice proper aseptic procedures in the dental clinic. Perform basic skills to select, collect and transport clinical specimens to the laboratory.
Attitude:	Show respect and collaboration with all peers and seniors while performing various academic activities.

JUNIOR OPERATIVE DENTISTRY	
By the end of second year, BDS students will be able to	
Knowledge:	Define Operative Dentistry Classify dental carious lesions. Identify hand and rotary cutting instruments.
Skills:	Apply principles of cavity preparation to design cavity which can receive various restorative materials on typodont teeth in skill laboratory. Demonstrate the proper usage of instrument handling used in cavity preparation.
Attitude:	Display collaboration with other students in classroom/skill lab sessions. Accepts professional ethical standards; accepts responsibility for behavior display leadership by keeping the team on task, while listening carefully to the ideas of others Articulate and display the professional ethical standards of the field.

JUNIOR PROSTHODONTICS	
By the end of second year, BDS students will be able to:	
Knowledge:	Define Prosthodontics Differentiate different branches of Prosthodontics and their application in everyday life. Comprehend effect of prosthetic replacement on the quality of life of an individual. Appreciate the implications of not addressing tooth loss at an appropriate time.
Skills:	Explain and practice lab procedures to make a complete denture.
Attitude:	Observe hygienic dental practice in the prosthetic laboratory and follow proper procedures and regulations for safe use of materials and disposal of waste. Collaborate with members of a team in a classroom and/or laboratory activities. Work collaboratively in a group setting Display leadership by keeping the team on task, while listening carefully to the ideas of others

TERM I

COMMUNITY DENTISTRY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
The professions of dentistry & dental hygiene	Define: 1. Profession 2. Professionalism	Lecture (2)	K	
	Define all 3 Models of professionalism in dentistry		K	Assignment BCQ
	List the organizations of the dental profession.		K	
The public served by dentistry	Discuss the use of primary and preventive dental services in terms of public health needs and demands.	Lecture (1)	K , A	BCQ Interactive group session
	Discuss the demographic factors associated with the utilization of dental services in primary and tertiary oral health demands in community.		K,A	
Ethics & responsibility in dental care	Define : 3. Ethics 4. Professional ethics 5. Self-regulation	Lecture (2) Tutorial	K,A	Assignment BCQ OSPE
	Describe the framework for ethical standards.		K,A	
	Compare the significance of Individual ethical responsibilities with social responsibilities		K,S,A	
	List the ethical principles applied in research protocols involving human subjects.		K,A	
	Discuss declaration of GENEVA by WMA		K ,A	
The practice of dental public health	Define Public health	Lecture ,flipped classroom (3)	K	
	Identify the concept and functions of Public Health Agencies.		K	
	Discuss the criteria of identifying a Public health problem		K	Assignment BCQ Project designing and evaluation OSPE
	Define the functions of public health dentist.		K	
	Differentiate between personal & community health care in 5 major points.		K	
	Define Dental Public Health.		K	
	Explain the achievements of dental public health.		K	
	Define planning cycle.		K	
	Define Surveillance.		K	
	Discuss the types of surveillance and planning cycle by WHO with 1 example of each step.		K	

Tooth Loss	Define Edentulism	Lecture, PBL (2)	K	Interactive Pictorial session BCQ OSPE
	Define Edentulous		K	
	Define Partial tooth loss		K	
	Explain all the reasons for tooth loss		K	
	Discuss the impact of edentulism		K	
	Discuss the modern preventive philosophy regarding Dental care and tooth loss		K,A	
The measurement of oral disease	Define methods for measuring oral diseases with 1 example of each	Lecture (2)	K,S	Assignment BCQ OSPE
	Discuss all 6 properties of Ideal Index with examples		K,S	
	Define all types of scale used in disease measurements		K,S	Flipped classroom approach
	Discuss 2 major parameters to measure the value of a diagnostic test		K,S	
Dental caries	Define: 1. Dental caries 2. Root caries 3. Early childhood caries	Lecture (3) PBL Tutorial	K	Assignment BCQ OSPE Class Presentation
	Discuss the Global distribution of dental caries		K	
	Discuss Demographic risk factor of dental caries		K	
	Differentiate between the Risk factor and risk indicator of dental caries		K	
	Discuss the following theories on dental caries: • Early theories on diet and caries • Epidemiological studies on diet and caries		K	
	Describe the relation between diet restriction and caries control		K	
Measuring dental caries	Define DMF index	Lecture (2) Tutorial Calculate DMF scores on models	K	BCQ OSPE Community visit
	Discuss the major Criteria for diagnosing coronal caries and root caries		K,S,A	
	List all the limitations of DMF index		K	
Periodontal disease	Define periodontal disease	Lecture (3) Tutorial PBL	K	Assignment BCQ OSPE Class Presentation
	Classify the Severity Of Periodontal Diseases		K,A	
	Classify all the major types of periodontal disease according to American Academy Of Periodontology		K	
	Discuss the Demographic risk factors of periodontitis		K,A	
	Discuss the local Risk factors of periodontitis		K	
	Describe the relationship between Periodontitis and systemic conditions		K	

Measuring periodontal diseases	Define: 1. Gingivitis 2. Plaque 3. calculus	Lecture (3) Tutorial Demonstration and performance on models/ community field trip	K	BCQ OSPE Class Presentation Community visit
	Discuss and perform the scores and criteria for gingival index		K,S	
	Discuss codes and criteria for community periodontal index by WHO		K,S	
	Discuss scores and criteria for plaque index		K,S	
	Classify the Severity Of Periodontal Diseases		K	
Prevention of Periodontal Diseases	Discuss rationale for controlling periodontal condition by regular plaque removal	Lecture (3) Tutorial Demonstration and performance on models	K	Assignment BCQ OSPE Class Quiz
	Discuss all aspects of Nature of dental plaque		K	
	List 3 essential Approaches to plaque control		K	
	Discuss all the methods of Mechanical plaque removal by individual and dental professionals		K	
	Discuss all the methods of chemical plaque removal		K	
	Differentiate between Professional and personal dental care in 5 points			

DENTAL MATERIALS				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
INTRODUCTION TO DENTAL MATERIALS				
Introduction to Selection of Dental Materials	Describe the process of selection of Dental Materials on the basis of: 1) Requirement of Dental Materials 2) Availability of Materials 3) Choice of Materials.	Lecture (1)	K	Assignment Class participation
Evaluation of Materials	List the standard specification tests		K/S	
	Describe the Laboratory evaluations of dental Materials		S	
	List the Clinical trials of Dental Materials.		S	
PROPERTIES USE TO CHARACTERIZED MATERIALS				
Mechanical Properties	Define the terms : Stress, Strain, Stress-Strain relationship, proportional limit, ductility, malleability, Resilience, Toughness, Fracture toughness & Impact strength, Creep & Flow, Hardness along with examples	Lecture (2)	K	Class test Group assignment Class Participation Group Presentations
	Describe the Fatigue properties, Abrasion resistance.		K	
	List the Types of Hardness evaluation tests.		S	
Rheological Properties	Define the term Rheology, Viscosity, and Shear Stress, Shear rate.	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Characterize the type of Fluids on the basis of Viscosity, with examples.		K	
Thermal Properties	Define the Thermal conductivity & Thermal diffusivity, Coefficient of Thermal Expansion.	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Explain the significance of Adhesion		K	
	Explain the significance of wetting & contact angle.		K	
	Give the major differences between Adhesives, Adherent, List the different types of bonding of Dental Materials.		K	
Miscellaneous Physical Properties	Define the terms Dimensional changes, appearance, hue, Chroma, brightness.	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Describe the Significance of Dimensional Stability of Dental Materials		K	

Chemical Properties	Define the terms Solubility, Erosion, Corrosion & Tarnish	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Describe the reasons for corrosion.		K	
	Describe the Testing of Corrosion & Tarnish		S	
Biological Properties	List the requirements of biological properties	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	List the significance of Biological Properties.		K	
	GYPSUM			
Introduction Requirements of Dental cast Materials Composition	Describe the Chemical reactions of Gypsum	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	List the main requirements of Model & Die materials		K	
	List the Ideal properties of Model and Die materials.		K	
	List the components of Gypsum.		K	
	Give the major differences between Dental plaster & Dental Stone		K	
Manipulation & Setting Characteristics	List the methods of Manipulation of Gypsum	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Give the Ideal W/P ratios of mixing Gypsum		K	
	Name the Tests for evaluation of setting characteristics of Gypsum		K	
	Describe the Significance of Hygroscopic Expansion		K	
	Explain the different ways to Control Setting time of Gypsum.		K	
Properties of the Set Material Application	Describe the Ideal Properties of Gypsum	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	List the Uses of Gypsum		K/S	
	Name the types of Gypsum		K	

Advantages & Disadvantages	List the Advantages of uses of Gypsum for various purposes	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	List the Disadvantages of use of Gypsum with various other Dental Materials.		K	
Practical	1.Construct Plaster slab of Gypsum (3/2 inches)	Practical (1)	S	
	2.Design Alphabet " A" wire bending 3.Prepare OSPE Spots	Practical (1)	S	
WAXES				
Introduction to Waxes	Describe the Origin of Waxes	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Explain the Patterning of Waxes using		K	
	Direct & Indirect wax pattern techniques.		K	
	List the Waxes used in dentistry		K	
	Describe the uses of different types of waxes		K	
Requirements of Wax pattern materials	List the Requirements for construction of wax patterns.		K	
	Discuss the properties for wax pattern construction.		K	
Composition of Waxes	Discuss the composition of Waxes based on its origin – (Mineral, Animal, Vegetables)		K	
Properties of Dental Waxes	Discuss the thermal & Mechanical properties of Waxes.	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	List the different methods for softening of Waxes.		K	
Applications of Waxes	Discuss the composition of waxes classify waxes on the basis of uses and origin		K	
	Explain Mode of manipulation of different types of waxes (pattern, processing, impression)		K	

INVESTMENT				
Introduction to Investment & Refractory Dies.	Discuss the composition of Investment material and Refractory Die	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
Requirements of Investments for alloy casting	List the ideal requirements of investment for alloy casting	Lecture (1)	K	
Investment Materials	Discuss the composition of Gypsum, phosphate and silica bounded investment materials	Lecture (1)	K	
Properties of Investment Materials	Discuss the Thermal and physical properties of different investment materials.	Lecture (1)		
Application of Investment Materials	Discuss the uses of Gypsum, silica and phosphate bounded investment materials and their method of application.	Lecture (1)	K	
Investment mould	Describe the mechanism for fabrication of investment mould with diagram	Lecture (1)	K	
ARTIFICIAL TEETH				
Introduction	Define artificial teeth	Lecture (1) Tutorial		Class test Group assignment Class Participation Group Presentations
	Enumerate the difference between the acrylic and porcelain teeth		K	
Composition	List the composition of acrylic teeth		K	
	Composition of porcelain teeth		K	
Properties	Discuss the properties of artificial teeth			
Requirement	Describe the ideal requirement of artificial teeth			
REQUIREMENT OF DIRECT FILLING MATERIALS				
Introduction	Define the restorative material	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Classify direct filling materials on the basis of tooth color.			
	List the factors used to assess the success and failure of restorative materials	Practical	K	
Appearance	Describe the tooth colored materials and their link to appearance of teeth.	Lecture (1) Practical/ Tutorial	K	
Rheological properties	Describe the rheological properties and setting characteristics of restorative materials.	Lecture (1)	K	

and setting characteristics	List the different forms in which restorative materials are supplied.	Tutorial		
Chemical Properties	Discuss the chemical, thermal properties related to filling materials	Lecture (1) Practical/ Tutorial	K	
Thermal Properties		Lecture (1) Practical/ Tutorial	K	
Mechanical Properties	Discuss the Mechanical properties related to filling materials.	Lecture (1) Practical/ Tutorial	K	
Adhesion	Discuss the bonding (adhesion) between tooth structure and restorative material	Lecture (1) Practical/ Tutorial	K	
Biological Properties	Discuss the biological properties related to filling materials	Lecture (1) Practical/ Tutorial	K	
History	Describe the history of direct restoration.	Lecture (1) Practical/ Tutorial	K	
	Discuss the properties of historical restorative material		K	
	List the advantages and disadvantages of restorative materials		K	
	Describe the types of restorative materials (tooth colored and non-tooth colored)		K	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
AMALGAM				
Introduction	Define the term Amalgam	Lecture (1) Practical	K	
	Describe the setting reaction for the formation of Dental Amalgam		K	
Composition	Differentiate the components of dental amalgam as per ISO classification	Lecture (1) Practical/ Tutorial	K	
	Explain the role of each component of Dental Amalgam, Explain the various phases during amalgamation.		K	
	Classify the dental amalgam on the basis of 1. Copper Content 2. Zinc Content 3. Size Of Alloy 4. Shape Of Alloy		K	
	Describe the methods for production of alloy particles (Atomization, Lathe cut)		K	
Setting Reaction	Discuss the phases occurring during setting reaction of amalgam	Lecture (1) Tutorial	K	
Properties	Discuss the physical, chemical, mechanical, thermal, biological properties of amalgam.	Lecture (1) Practical/ Tutorial	K	
Clinical handling of dental amalgam	Discuss the basic principles of cavity designing for amalgam	Lecture (1) Practical/ Tutorial	K	
	List the different types of matrices		K	
	Describe the procedures for placing the matrix band		S	
Manipulative variables	Discuss the sequences of events for amalgam manipulation: 1. Proportioning and dispensing 2. Trituration 3. Condensation 4. Carving 5. Polishing and finishing	Lecture (1) Practical/ Tutorial	**S**	

PHARMACOLOGY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
GENERAL PHARMACOLOGY				
Introduction to Pharmacology	Define Pharmacology	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation Assignment
	Describe the branches of pharmacology			
Pharmacokinetics	Classify various routes of drug administration	Lecture (1) Practical/ Tutorial	K/A	
	Explain advantages and disadvantages of different routes of drug administration			
	Discuss the sequence of drug absorption and biochemical changes which occur in the cell	Lecture (1) Practical/ Tutorial	K/A	
	Explain Ionization of weak acids and bases and HandersonHasselbalch equation			
	List at least four Ionized and Nonionized drugs			
	Distinguish between water and lipid soluble drugs along with examples			
	Discuss permeation of drug in the body			
	Describe the factors for modification of drug absorption	Lecture (1) Practical/ Tutorial	K/A	
	Discuss drug distribution, Volume of distribution (Vd) and plasma protein binding.			
	Define Bioavailability Describe the factors affecting bioavailability of drug.	Lecture (1) Practical/ Tutorial	K/A	
	Define Biotransformation	Lecture (1) Practical/ Tutorial	K/A	
	Describe the sites and factors affecting biotransformation of drug.			BCQ OSPE Group Presentation Class Participation Assignment
	Discuss the phases of metabolic reactions/ biotransformation with examples			
	Name the organs of drug elimination	Lecture (1) Practical/ Tutorial	K/A	
	Explain first-order elimination and zero-order elimination along with examples			
	Discuss drug interactions and its clinical effects.	Lecture (1) Practical/ Tutorial	K/A	
	Define first pass effect and enterohepatic circulation			
	Explain half life of drug and the factors affecting half life	Lecture (1) Practical/ Tutorial	K/A	
	Describe enzyme induction and enzyme inhibition			

	Discuss steady state concentration.			
	Define dose	Lecture (1) Practical/ Tutorial	K/A	
	Discuss different types of dosage according to severity of disease.			
	Define therapeutic index			
	Describe ratio of lethal dose and effective dose			
	Corelate the mechanism of action of drugs and receptors	Lecture (1) Practical/ Tutorial	K/A	
Pharmacodynamics	Describe different types of receptors according to transmembrane signaling mechanisms along with examples.			
	Classify different type antagonists according to drug receptor interactions along with examples.			
	Discuss Dose response relationships(quantal and graded dose)	Lecture (1) Practical/ Tutorial	K/A	
	Define agonist , partial agonist and antagonist			
	Discuss efficacy and potency of drug			
	Define Tachyphylaxis and tolerance with examples.			
Adverse Drug Reaction	Discuss Drug allergy/hypersensitivity& Idiosyncrasy with examples	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation Assignment
	Define side effects and toxic effects			
	Categorize various form/classes of adverse effects of drugs with examples			
	Describe Teratogenesis			
Dosage forms	Discuss different types of dosage forms along with examples	Practical/ Tutorial	K/A	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
ANS				
Introduction To Autonomic Nervous System	Describe the actions of the parasympathetic and sympathetic nervous system on effector organ	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation Assignment
	List the different types of neuro transmitters			
	Classify different types of receptors according to neurotransmitters action in parasympathetic and sympathetic nervous system.			
	List different types of cholinergic receptors, its location & effects on body			
	Classify Parasympathomimetics / Cholinergic agonists according to direct and indirect acting drugs.			
	List different types of adrenergic receptors, its location & effects on body			
Parasympathomimetics /Cholinergic agonist	Describe pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all Parasympathomimetics/ Cholinergic agonists.	Lecture (1) Practical/ Tutorial	K/A	
	Explain organophosphate compound poisoning and its treatment	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation Assignment
	Define myasthenia gravis			
	Enumerate the drugs used for diagnosis and treatment of myasthenia gravis			
	Define glaucoma	Lecture (1) Practical/ Tutorial	K/A	
	List the drugs used in treatment of glaucoma			
	Classify Parasympatholytic/Cholinergic antagonists according to receptor blocking drugs.	Lecture (1) Practical/ Tutorial	K/A	
Parasympatholytics /Cholinergic antagonist	Describe pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all parasympatholytic/cholinergic antagonist (Muscuranic & Nicotinic antagonist)			
		Lecture (1) Practical/ Tutorial(small group discussion)	K/A	
Sympathomimetics /Adrenergic agonists	Classify sympathomimetics/adrenergic agonists according to chemical nature, receptor sensitivity and mode of action(direct/ indirect acting)			

	Describe the pharmacokinetics, mode of action , therapeutic uses/indications, adverse effects and contraindication of all sympathomimetics/adrenergic agonists	Lecture (1) Practical/ Tutorial	K/A	
	Classify sympatholytics/adrenergic antagonists according to according to receptor blocking drugs.			
Sympatholytics /Adrenergic antagonists	Describe pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all sympatholytics/adrenergic antagonists.	Lecture (1) Practical/ Tutorial(small group discussion)	K/A	
Weight and Measures	Define weight and measures	Practical/ Tutorial	K/A	
	Discuss imperial and metric system			
	List conversions of different value			
AUTOCOIDS AND ANTI INLFAMMATORY				
Autacoids	Define the Autacoids	Flipped class room (1) Practical/ Tutorial	K/A	OSPE BCQ
	Explain the role of Histamine in the body			
	Classify Antihistamines according to mode of action			
	Describe the pharmacokinetics and pharmacodynamics of Antihistamines			
Serotonin	Classify Serotonin receptor agonists and antagonists according to receptor activating/blocking drugs.	Lecture (1) Practical/ Tutorial	K/A	
	Describe the actions of Serotonin on the organ systems of the body			
	Describe the effects and clinical uses of Serotonin agonists			
	Describe the mechanism, effects, clinical uses and toxicity of Serotonin antagonists			
Eicosanoids	Define Eicosanoids	Lecture (1) Practical/ Tutorial		
	Differentiate between Prostaglandins and Leukotrienes			
	Classify Eicosanoids agonists and antagonists on the basis of mode of action			
	Describe the mechanism of action of Prostaglandins, Leukotrienes and Thromboxanes			
	Describe the pharmacological effects of common Prostaglandins			

Introduction to solutions	Discuss different types of solution according to number of solutes	Practical/ Tutorial	K/A	
Normal saline solution	To dispense 50ml of 5% of glucose in normal saline solution			
NSAIDs	Classify NSAIDs according to chemical nature	Flipped Class room/(1) Practical/ Tutorial(small group discussion)	K/A	BCQ OSPE Group Presentation Class Participation
	Describe the pharmacokinetics and pharmacodynamics of Aspirin			
	Enumerate therapeutic uses/indications, adverse effects and contraindication of aspirin			
	Describe the treatment of Aspirin poisoning			
	Summarize the pharmacokinetics, pharmacodynamics of commonly used NSAIDs			
	Enumerate therapeutic uses/indications, adverse effects and contraindication of commonly used NSAIDs			
DMARDs	Describe the drugs used as anti-arthritis	Lecture (1) Practical/ Tutorial	K/A	
	Classify DMARDs according to mode of action			
	Summarize the pharmacokinetics and pharmacodynamics, indications and side effects of DMARDs			
Anti-gout Drugs	Classify Anti gout drugs according to mode of action	Lecture (1) . Practical/ Tutorial	K/A	
	Summarize the pharmacokinetics, pharmacodynamics, indications and side effects of Anti-gout drugs			

PATHOLOGY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
CELL INJURY				
Introduction to Pathology Overview: Cellular responses to Stress and Noxious Stimuli	Define Pathology and Pathogenesis. Discuss cellular responses to the injury and stages of the cellular response to stress and injurious stimuli. Briefly discuss cellular responses to the injury and stages of the cellular response to stress and injurious stimuli.	Lecture (1)	K	BCQOSPE Group Presentation Class Participation Assignment
Cellular adaptations	Describe cellular Adaptations Discuss Hyperplasia, Metaplasia, Dysplasia, Atrophy and Hypertrophy with examples	Lecture (1) Tutorial	K	
Practical	Discuss the histopathology of Adaptation	Practical	K	
Cell Injury and Cell Death	Define cell injury List causes of cell injury Differentiate between irreversible and reversible injuries. Describe the sequence the ultra-structural and biochemical changes which occur in the cell in response to cell injury	Lecture (1) Tutorial	K	
Practical	Discuss the histopathology of fatty change	Practical	K	
Mechanism of Cell Injury I & II	Describe Mechanisms of Cell Injury including Depletion of ATP, Mitochondrial damage, Influx of Calcium, Accumulation of Oxygen derived free radicals, Defects in membrane permeability, Damage to DNA and Proteins Discuss properties of the Principal Free Radicals Involved in Cell Injury.	Lecture (2)	K	BCQOSPE Group Presentation Class Participation Assignment
Necrosis & Apoptosis	Define necrosis Differentiate between/among: • various types of necrosis • apoptosis and necrosis	Lecture (3) Tutorial	K	

Necrosis & Apoptosis	Discuss morphologically distinct patterns of necrosis including coagulative necrosis, liquefactive necrosis, gangrenous necrosis, caseous necrosis, Fat necrosis, and fibrinoid necrosis with examples Discuss causes, morphological and biochemical changes, clinic-pathologic correlations in Apoptosis Summarize the pathways of apoptosis. Discuss the pathogenesis and significance of apoptosis			
Practical	Elaborate histopathology of necrosis	Practical	K	
Intracellular accumula-tion	Describe various types of intracellular accumulations	Lecture (1) Tutorial	K	
	Differentiate between dystrophic and metastatic calcifications			
	Describe the clinical significance of dystrophic and metastatic calcifications			
	Discuss various types of culture media Culture the organisms from specimen	Practical		

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
INFLAMMATION, HEALING AND REPAIR				
Inflammation Introduction	Define Inflammation List the causes of inflammation Describe the role of inflammation in the defense mechanisms of the body.	Lecture (1)	K	BCQOSPE Group Presentation Class Participation Assignment
	Differentiate between acute and chronic inflammation			
Acute inflammation	Describe the vascular changes of acute inflammation. Relate morphological and tissue effects to the vascular changes of acute inflammation.	Lecture (2)	K	
	Describe the cellular events of inflammation, particularly process of chemotaxis, opsonization and phagocytosis. Explain different morphological pattern of acute inflammation List the outcomes of acute inflammation			
	Discuss the histhopathology of acute inflammation	Practical	K	
Chemical mediators of inflammation	List the important chemical mediators of inflammation	Lecture (3) Tutorial	K	
	Describe the path way particularly the complement & coagulation pathways. Elaborate Archidonic acid metabolism.		K	
	Discuss the role of products of Archidonic acid metabolism in inflammation.		K	
	Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens.		K	
Chronic Inflammation	Describe chronic inflammation including granuloma. List the causes and morphological features of chronic inflammation	Lecture (2) Tutorial	K	
Practical's	Discuss the histopathology of Chronic Inflammation	Practical	K	

Practical's	Discuss the histopathology of granulomatous inflammation	Practical	K	
Healing & Repair	Define repair and regeneration Describe wound healing by first and second intention Describe the formation of granulation tissue Contrast repair by primary and secondary intention	Lecture (2) Tutorial	K	
Practical	Discuss the histopathology of granulation tissue	Practical	K	
Complications of wound healing.	Describe the complications of wound healing.	Lecture (1) Tutorial	K	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
GENERAL MICROBIOLOGY				
Introduction to microbiology	Classify micro-organism on the basis of their characteristics? with examples	Lecture (1) Tutorial	K	BCQOSPE Group Presentation Class Participation Assignment
	Differentiate between Eukaryotes & prokaryotes with examples			
Morphology of bacteria	Classify the Bacteria according to their shapes, staining, motility and accessory, Normal Human Microbiome			
	Identify the parts of light (compound) Microscope	Practical	K,S	
	Explain the uses of different parts of Microscope			
	Distinguish between light and electron microscope			
	Define staining with its types	Lecture (1) Practical/ Tutorial	K,S	
	Demonstrate the procedure of simple Staining			
	List the Indication and give significance of staining procedure			
	Describe the steps of Gram staining procedure	Practical	K,S	
	Demonstrate the Gram staining procedure			
	Interpret the result on the basis of: Shape, Color and Arrangement			
	Define ziehl neelsen(acid fast) staining	Practical	K,S	
	State the Indication of ziehl neelsen(acid fast) staining neelsen(AFB)staining	Practical/ Tutorial		
	Describe the steps of ziehl neelsen staining method			
	Demonstrate the steps of ziehl neelsen staining procedure			
	Interpret the result			
Anatomy of bacterial cell wall	Explain the structure of bacteria	Lecture (1)	K	
	List the Essential & non-essential structures of bacterial cell and define their functions	Lecture (1) Tutorial	K	BCQOSPE Group Presentation
	Explain bacterial cell wall along with their function			
	Describe the capsule and glycol calyx			
	Define Plasmids and its type			

	Explain Plasmid functions			Class Participation Assignment
	Discuss the Transposons			
	Describe the bacterial Spore and its importance			
	Differentiate between gram positive & gram negative cell wall			
Physiology of bacteria	Define Aerobes, Anaerobes, facultative an aerobes carboxyphilic organisms	Lecture (1) Tutorial	K	
	List the examples of aerobes, anaerobes, micro aerophilic, and Facultative anaerobes		K	
	Discuss Nutritional requirements of bacteria.		K	
	Explain Growth curve of bacteria.		K	
Classification	Classify medically important Bacteria	Lecture	K	
Laboratory diagnosis	Describe specimen collection &transport	Lecture/ Tutorial	K	
	(throat, swabs, blood culture)	(1)		
	Define culture media	Practical/ Tutorial	K	BCQOSPE Group Presentation Class Participation Assignment
	Classify the culture media on the basis of: Consistency Ingredients			
	Discuss the bacteriologic methods		K	
	Describe the immunologic methods		K	
	Explain the nucleic acid– based methods			
	Demonstrate the Wet mount			
	Interpret Culture & sensitivity testing			
	Demonstrate different culture media with their use			
	Explain the SDA MEDIA and its uses		K	
	Brief description of commonly used bacteriologic agar and their function			
Host defense	Discuss the principles of host defense, innate immunity (skin and mucous membrane)	Lecture	K	
Bacterial Vaccines	Explain the principles of bacterial vaccines Discuss bacterial vaccines use for active	Lecture	K	
Sterilization and disinfection	Define sterilization, disinfection ,antiseptic Classify Various physical & chemical methods of sterilization with examples Distinguish b/w disinfections and Sterilization. Demonstrate the various methods of sterilization and disinfection which are important according to Lab	Practical/ Tutorial	K	BCQOSPE Group Presentation Class Participation Assignment

JUNIOR OPERATIVE DENTISTRY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
Introduction	By the end of Junior Operative lecture, students should be able to: 1. Define Operative Dentistry 2. Explain the significance of Operative Dentistry	Lecture (1)	Knowledge	Class participation
Review of Dental Anatomy/ Biologic Considerations in Operative Dentistry	By the end of Junior Operative lecture, students should be able to: 1. Discuss chemical composition, structure and properties of enamel, dentin, pulp, cementum and gingiva. 2. Discuss morphologic and histologic structure of tooth tissues with their clinical impact on restorations. 3. Discuss the importance of dento-gingival complex and biologic width when planning restorations.	Lecture (1)	Knowledge	Class participation
Tooth Notation System	By the end of Junior Operative lecture, students should be able to: 1. Name and number teeth according to various notation systems	Lecture (1)	Knowledge	Class participation
	By the end of Junior Operative tutorial, students should be able to: 1. Identify the tooth and tooth number according to various notation systems	Tutorial (1)	Knowledge	Tutorial Test
Patient Protocol/ Patient and Operator Positioning	By the end of Junior Operative lecture session, students should be able to: 1. Explain the significance of correct patient and operator position 2. Describe correct patient operator positions when carrying out restorative procedures on patients	Lecture (1)	Knowledge	Class participation
	By the end of Junior Operative practical session, students should be able to: 1. Perform receiving and seating of patient on simulated patient 2. Demonstrate taking of consent from patient. 3. Demonstrate the correct patient and operator positions when carrying out restorative procedure on phantom head/ typodont in different quadrants/teeth	Tutorial/ Practical Demonstration (1)	Knowledge/ Skill	MiniCEX DOPS
Caries, Classification,	By the end of Junior Operative lecture, students should be able to:	Lecture (3)	Knowledge	Class participation

Diagnosis and Prevention	1. Define dental caries 2. Classify different types of caries based on location, spread, extent, rate etc., according to G.V. Black and G.J. Mount. 3. Explain the factors responsible for caries development. 4. Discuss various methods of detection and diagnosis of dental caries 5. Identify clinical features of different types of caries 6. Describe the various methods of caries control.			Class Test
	By the end of Junior Operative tutorial session students should be able to: 1. Identify carious lesions on tooth model based on site, size, extent etc.	Tutorial (1)	Knowledge	Tutorial Test
Operative Instruments	By the end of Junior Operative lecture, students should be able to: 1. Identify instruments used in Operative Dentistry 2. Classify the instruments on the basis of cutting, non-cutting, use, handheld and rotary etc. 3. Describe the hand instrument formula 4. List various methods of instrument grasping 5. Describe the different parts of dental bur. 6. Classify the different types of dental burs based on their head shape, material and shank design. 7. Identify the parts of high speed and slow speed hand pieces. 8. Enumerate the precautions to be undertaken while using rotary instruments.	Lecture (2)	Knowledge	Class participation Class Test
	By the end of Junior Operative practical session, students should be able to: 1. Demonstrate accurate technique of grasping hand instruments. 2. Demonstrate correct handling of high speed and slow speed hand pieces on phantom teeth. 3. Demonstrate sharpening of hand instruments	Tutorial/ Practical Demonstration (1)	Knowledge/ Skill	MiniCEX DOPS

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Dental Unit	By the end of Junior Operative practical session, students should be able to: 1. Identify all parts of a dental unit 2. Describe the use of different parts of the dental unit 3. Demonstrate correct operation of different parts of dental unit 4. Perform accurate placement of different attachments (high speed, slow speed hand pieces) to the dental unit	Tutorial/ Practical Demonstration (1)	Knowledge/ Skill	MiniCEX DOPS
Principles of Cavity design	By the end of Junior Operative lecture, students should be able to: 1. State the objectives of tooth preparation 2. Enumerate various tooth preparation terminologies e.g. tooth surfaces, line angles, point angles, outline form, retention form, resistance form and convenience form. 3. Explain basic principles of tooth preparation. 4. Differentiate between tooth preparation features of amalgam and composite restoration. 5. Classify various tooth preparations such as class I, II, III & IV. 6. Describe initial and final stages of tooth preparations.	Lecture (1)	Knowledge	Flipped Classroom
	By the end of Junior Operative practical session, students should be able to: 1. Identify various surfaces in a prepared cavity. 2. Identify various features in a prepared cavity indicating principles of tooth preparation.	Tutorial (1)	Knowledge	Tutorial Test
Class I Cavity Preparation	By the end of Junior Operative lecture, students should be able to: 1. Explain features of class I cavity design for amalgam restoration. 2. Explain the steps of cavity preparation for class I amalgam restoration. 3. Explain feature of class I cavity design for composite restoration. 4. Explain the steps of cavity preparation for class I composite restoration	Lecture (2)	Knowledge	Class participation Socrative
	By the end of Junior Operative practical, students should be able to:	Tutorial Practical	Knowledge/ Skill	Mini CEX/ OSAT

	1. Demonstrate principles of tooth preparation while preparing cavity for class I amalgam and composite restoration on maxillary and mandibular phantom/extracted teeth	Demonstration (2)		DOPS
Isolation	By the end of Junior Operative lecture, students should be able to: 1. Define isolation 2. State advantages of isolation in Operative Dentistry. 3. Enumerate different methods of moisture control in dentistry 4. List advantages and disadvantages of rubber dam application 5. List rubber dam armamentarium	Lecture (2)	Knowledge	Class participation Class Test
	By the end of Junior Operative practical session, students should be able to: 1. Identify various components of rubber dam armamentarium 2. Select rubber dam clamp for a specific tooth. 3. Perform rubber dam isolation on phantom head/typodent for both anterior and posterior teeth demonstrating all steps accurately using different techniques(dam over clamp, clamp over dam, dam and clamp simultaneously)	Tutorial/ Practical Demonstration (1)	Knowledge/ Skill	Mini CEX/ OSAT DOPS
Liners and Bases	By the end of Junior Operative Tutorial session, students should be able to: 1. Describe clinical scenarios where liners and bases are required in a cavity. 2. Demonstrate correct technique for placement of different liners (Calcium Hydroxide, Glass Ionomer Cement) and bases in cavities prepared on phantom/ extracted teeth	Tutorial/ Practical Demonstration (1)	Knowledge/ Skill	Mini CEX DOPS
	CLASS TEST / PRESENTATION / REVISION	Lecture (1)		

JUNIOR PROSTHODONTICS				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
Introduction to Prosthodontics	Define Prosthodontics List branches of Prosthodontics Define i) Conventional denture ii) Immediate denture iii) Over denture iv) Single complete denture v) Implant supported complete denture Describe reasons for tooth loss Identify surfaces of the complete denture on a given model.	Lecture (2)	Knowledge	
Anatomy and physiology of complete denture	Discuss the clinical importance of extra oral landmarks Identify on picture i) Inter pupillary line ii) Ala tragus line iii) Canthus tragus line iv) Nasiolabial sulcus v) Vermillion border vi) Philtrum vii) Modiolous viii) Angle of the mouth. Identify intraoral landmarks of prosthetic importance on ideal model of maxilla i) Residual ridge ii) Maxillary tuberosity iii) Palate iv) Mid palatine raphe v) Incisive papilla vi) Palatine rugae vii) Torus palatines viii) Fovea palatinae ix) Post palatal seal x) Hamular notch xi) Cuspid eminence xii) Zygomatic process Discuss intraoral landmarks of prosthetic significance for fabrication of mandibular complete denture. i) Residual ridge ii) External oblique ridge iii) Buccal shelf area iv) Mental foramen	Lecture (3) Group Discussion Tutorial Practical Flip class room	Knowledge Practical on ideal model	Class Participation

	v) Retro molar pad area vi) Mylohyoid ridge vii) Torus mandibularis viii) Internal oblique ridge ix) Genial tubercle			
Tongue Form	Classify tongue form according to House Describe selection of occlusion depending on tongue condition: - Tongue position - Examination of floor of mouth posture - Tongue biting	Lecture (1) Practical	Knowledge	Class participation
Saliva	Discuss the importance of saliva in complete denture retention considering the following: - Salivary flow and viscosity - Medical conditions affecting the salivary flow and viscosity - Xerostomia Discuss the salivary factors contributing to complete denture retention. Discuss the management of edentulous patients with altered salivary flow	Lecture (1)	Knowledge	Class participation
Peripheral tissue attachment of denture bearing area	Identify the border structures that limit the periphery of the denture in maxilla in the given model i) Labialfrenum ii) Labialvestibule iii) Buccalfrenum iv) Buccalvestibule v) Hamularnotch vi) Posterior palatal seal area vii) Foveapalatinae Identify structures border structures that limits the periphery of the denture in mandible i) Labialfrenum ii) Labial vestibule iii) Buccalfrenum iv) Buccal vestibule v) Lingual frenum vi) Alveololingual sulcus vii) Retro molar pad viii) Pterygomandibularraphae.	Lecture (3) Group Discussion Tutorial Practical	Knowledge / skill/ practical on ideal model	Class Participation Class Test

RESEARCH				
Topic	**Objectives**	**Teaching methodology**	**Outcome**	**Assessment Tools**
How to Perform Literature Search 1hr	1.Understand the importance of literature search in evidence-based dentistry. 2. Identify relevant databases (e.g., PubMed, google scholar, Scopus). 3. Develop effective search strategies using Boolean operators (AND, OR, NOT). 4. Apply filters and limits to refine search results. 5. Evaluate search results for relevance and validity.	Lectures, Research meetings, small group discussions digital library sessions.	Submission &approval of Synopsis from Institutional IRB.	MCQs, Summative assignments research based.
Writing background and rationale of the study 1hr	1. Provide context and overview of the research topic. 2. Describe the research context and relevant literature. 3. Identify gaps and limitations in previous research. Rationale of the Study 1. Justify the research question or hypothesis. 2. Explain the significance and potential impact of VCCCCCCCC the study. 3. Highlight the knowledge gap or limitation addressed			
Writing methodology with appropriate study design 1hr	1. Describe the research design (e.g., experimental, observational). 2. Justify the chosen study design. 3. Outline the study setting, population, and sample. 4. Describe data collection methods (e.g., surveys, interviews). 5. Explain data analysis procedures.			
Designing a questionnaire 1hr	1. Define purpose and scope of the questionnaire. 2. Identify relevant variables to be measured. 3. Select suitable question types (e.g., multiple-choice, Likert scale). 4. Construct clear, concise, and unambiguous questions. 5. Ensure validity and reliability of the questionnaire.			

COMMUNICATION SKILLS				
Topic	**Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**

Basic elements of communication	• Define the following with reference to professional behavior:
	  • Active listening
	  • Empathy
	  • Verbal and Non-verbal communication
		Lecture (1)	Knowledge	BCQs OSPE & end Lecture Test

	• Define the seven Cs of effective communication: clear, concise, concrete, correct, coherent, complete and courteous			
	• Describe process, principles and models of communication skills in health care context (basic elements and group dynamics)	Lecture (1)		

	• Describe the following:
	  • Two factors; Sender & receiver
	  • Four key components: Encoding, medium of transmission, decoding and feedback.			

Models of communication	• Describe the 3 models for communication: Linear, Interactional, and Transactional	Lecture (1)	Knowledge and Attitude	BCQs OSPE & end Lecture Test
	• Discuss the challenges and advantages in using the 4 models of physician-patient relationship (informative, interpretive, deliberative, paternalistic) in the local context	Lecture (1) Pre Readings Based Small Group Activity		

PATIENT SAFETY				
Topic	**Objectives**	**Mode of Teaching Lecture/ Lectures**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
Introduction to Patient Safety	• Define patient safety and clinical environment • Discuss International Patient Safety Goals • Explain the basic aspects of patient safety process • Discuss the importance of ethical practices and their relevance to patient safety	Lecture (1) + Pre Readings (1)	Knowledge	BCQs + end Lecture Test
	• Explain the reasons of harm to patients • Describe the concept of 'burden of harm' • Discuss the role of human factors and its impact on patient safety • Discuss Universal Health Coverage by WHO	TBL (2) + Pre Readings (1)	Knowledge/ Skill/ Attitude	BCQs + Class Activities
	• Demonstrate the steps of disinfecting the dental impression for dental prosthesis.	Practical (1)	Skill/ Attitude	OSCE
	• Demonstrate handling, maintenance, and troubleshooting of dental instruments and equipment .	Practical (1)	Skill/ Attitude	OSCE
	• Demonstrate rubber dam application for patient's safety for dental procedures.	Practical (1)	Skill/ Attitude	OSCE
	• Practice drills for evacuating patients safely in the event of fire, natural disasters, or other emergencies in the dental clinic.	Practical (1)	Skill/ Attitude	OSCE

LEADERSHIP, PROFESSIONALISM & ETHICS (LeaPE)				
Topic	**Objectives**	**Mode of Teaching Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
LEADERSHIP				
Self-Awareness:, Self-efficacy, Emotional Intelligence and Attribution style	• Define the terminologies	Lecture (1)	Knowledge	MCQS
	• Differentiate between EQ & IQ		Knowledge	MCQS
	• Identify one's own EQ score		Skill/ Attitude	-
	• Discuss the importance of developing EQ for professional and personal development		Knowledge	MCQS
	• Develop a plan for improving ones EI	Small Group Activity (1)	Knowledge/ Skill/ Attitude	MCQS
	• Discuss the importance of self-efficacy in professional success	Lecture + Practical (1)	Knowledge	MCQS
	• Identify one's own locus of attribution as per theory by Bandura		Skill/ Attitude	-
Time Management, Self-Management & Personal Development	• Discuss strategies for managing time effectively	Workshop (3)	Knowledge	MCQS One on one Feedback
	• Discuss strategies for improving one's own learning and professional productivity		Knowledge	
	• Identify personal strengths and weakness		Skill/ Attitude	
	• Develop strategies for enhancing productivity		Skill/ Attitude	

PAKISTAN STUDIES				
Topic	**Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
HISTORICAL PERSPECTIVE				
People & Land	• Describe the geographical Features of Pakistan, its location, features of the land and important landmarks	Lecture (3)	K/A	
	• Name the countries neighboring Pakistan		K/A	BCQ /Assignment
	• Discuss the significance of prehistoric civilizations of the subcontinent, i.e., Mehrgarh, Indus Valley Civilization (Mohenjo-Daro & Harappa), and Gandhara.		K/A	
	• Discuss the historical contacts made by Indians with traders, travelers and conquerors from the Middle East, Persia, Central Asia, etc		K/A	
	• State relevant example of foreign assimilations into mainstream India		K/A	
	• Discuss the reasons that brought them to the Subcontinent.		K/A	
	• State relevant examples of cultural & religious assimilations as witnessed in the art, literature and political/ religious movements		K/A	

Ideological Rationale for the creation of Pakistan	• Explain the contributions made to the Pakistan Movement by the following:
	  • Sir Syed Ahmed Khan,
	  • Sir Allama Muhammad Iqbal,
	  • Quaid-e-Azam Muhammad Ali Jinnah
		Lecture (3)	K/A	BCQ /Assignment

Factors leading to Muslim separatism	• Describe the factors that led to Muslim separation	Lecture (1)	K/A	

TERM II

COMMUNITY DENTISTRY				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
The practice of dentistry	Define Primary health care (PHC) according to Alma Ata Declaration.	Lecture FLIPPED CLASSROOM PBL (3)	K,A	Assignment BCQ OSPE
	Define the principles of PHC.		K	
	Discuss the concept of private dental practice and its advantages.		K,S,A	
	Explain the 3 levels of prevention with 1 examples of each.		K,S,A	
	Compare in 5 major points Private practice and Salaried practice.		K	
Financing dental care	Define Quality assurance.	Lecture (2)	K	Assignment BCQ Class Quiz
	Discuss all Insurance principles.		K	
	Define Third party payment in financial dental care.		K	
	Describe NOT FOR PROFIT dental plan.		K	
	Define: 1. Delta dental plan 2. Blue cross 3. Blue shield 4. Commercial insurance plan.		K	
	Differentiate between Medicare and Medicaid in 3 major points each.		K	
The Dental Workforce	Define Dental Team	Lecture / Tutorial (2) TEAM BASED LEARNING	K	Assignment BCQ OSPE PRACTICAL APPROACH
	List the types of Dental Personnel		K	
	Discuss the major duties of qualified Dentist		K	
	Define Dental auxiliaries		K	
	Classify dental auxiliaries a/c to their function		K	
	Describe all 4 levels of supervision of Allied dental personnel		K	
Access to Dental Care	Define access to dental care	Lecture (1)	K	BCQ
	Discuss major reasons for access problem to dental care		K	
	Explain 5 Strategies to solve the access problem to dental care		K	
Oral health promotion	Define: 1. Health promotion 2. Dental health education	Lecture (2) Tutorial	K ,A	Assignment BCQ OSPE
	Discuss Ottawa charter for health promotion		K ,A	
	Discuss the global Goals for oral health by WHO		K	
	List the principles of oral health education		K ,A	

The healthy dental practice: infection control and mercury safety	Define the following terms: infection, infestation, infection control, eradication, agent, host and environment	Lecture (3) Tutorial	K	Assignment BCQ OSPE Class Presentation
	Discuss the guidelines of infection control based on the concept of standard precaution		K	
	Describe 3 principle signs of Oral manifestations of HIV patient		K	
	Discuss primary routes of transmission of HEP B and C		K,S	
	List s/s of HEP B and C		K K,S	
	Discuss the measures to reduce contamination through Dental unit waterlines		K.S	
	Describe the composition of Dental amalgam.		K	
	Describe safety and environmental issues related to dental amalgam		K	
	Differentiate between disinfection and sterilization 10 points each.		K,S	
Research designs in oral epidemiology	Define epidemiology and research methodology.	Lecture (3) FLIPPED CLASSROOM Tutorial	K	BCQ OSPE Class Presentation
	Discuss all the experimental and non-experimental types of epidemiological study designs with their advantages and disadvantages and differences		K,S	
	Define randomization		K,S	
	Define Casualty and risk 1. Placebo 2. Inter and intra examiner reliability 3. Types of risk		K,S	
	Define endemic, epidemic and pandemic.		K,S	
	Explain the major criteria for selecting a research topic.		K,S	
	Define Bradford hill criteria.		K	
	Discuss essential features of research protocol(DALLY) with humans		K,S	
	Explain the criteria to accept a given exposure as a risk factor for a particular disease		K	
Biostatistics	Define Statistical analysis	Lecture (3) Tutorial	K	Assignment BCQ OSPE
	Define the terms statistics and biostatistics		K,S	
	Discuss the procedures and skills in data collection.		K	
	Define Vital statistics and its types.		K,S	

	Discuss the role of vital statistics in determining the health status of country.		K, S	Class quiz
	Define and calculate measures of central tendency (mean, median, and mode).		K,S	
	List the major advantages and disadvantages of measures of dispersion.		K,S	
	Describe all methods of data presentation.		K	
Research Methodology	Define research	Lecture (3) Tutorial/Online search engines/ sample size calculator	K	Assignment BCQ OSPE Class Presentation
	List the components of Research.		K	
	Explain the purpose of research, literature review.		K,S	
	Explain the role of search engines in data base collection		K,S	
	Discuss the components of research methodology (including study setting, target population, sample technique and sample size etc.).		K,S	

DENTAL MATERIALS				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
CERAMICS				
Introduction	Discuss the History of ceramics & porcelain fused to metals, its uses and properties of PFM appliances.	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation Group Presentations
Composition of traditional dental porcelain	Describe the composition of various types of porcelain (Decorative, High Fusing dental, Low Fusing dental porcelain) with its uses and properties.		K	
Compaction & Firing	Explain the mechanism of compaction & Firing for Porcelain buildup.	Lecture (1) Tutorial	K	
Properties of porcelain	List the Ideal requirements of porcelain and its uses in dentistry.	Lecture (1) Tutorial	K	
	Discuss the mechanical & thermal properties of porcelain, and mechanism to strengthen porcelain.	Lecture (1) Tutorial	K	
Alumina Inserts & Aluminous Porcelain	List the disadvantages of porcelain and the method to overcome the disadvantages	Lecture (1) Tutorial	K	
	Describe the materials used to improve the properties of porcelain.			
Sintered Alumina core-ceramics	Discuss the advantages by addition of sintered alumina cores to porcelain, and high flexural strength of sintered Alumina system.		K	
Injection moulded and pressed ceramics	Discuss the history of production of all ceramic crowns in dentistry, and pressed ceramics with indications and properties.	Lecture (1) Tutorial	K	
	List the Techniques for fabricating ceramic copings with compositions and indications.	Lecture (1) Tutorial	K	
Cast glass & Polycrystalline ceramics	Discuss the composition, casting of ceramics with advantages and disadvantages, and introduction of (Y-2TP) material with details.	Lecture (1) Tutorial	K	
	List the Indications and properties of ceramics		K	

CAD-CAM Restorations	Discuss the indications and procedure of CAD-CAM	Lecture (1) Tutorial	K	
	List the advantages and disadvantages of CAD-CAM		K	
	List the Materials used and milling technique of CAD-CAM restorations.		K	
Porcelain Veneers	Describe the techniques for construction of porcelain veneers	Lecture (1) Tutorial	K	
	Explain the factors to improve appearance of veneered tooth		K	
	Discuss the alternatives to porcelain veneers (preformed acrylic veneers, Polish-able composite Resin Veneer)		K	
Porcelain fused to metal (PFM)	Describe the requirements and mechanical properties of PFM	Lecture (1) Tutorial	K	
	Discuss the requirements of alloys used to form sub-structures for non-porcelain bonding along with their composition (High Gold Alloys, Low Gold Alloys, Silver Palladium, Nickel chromium alloys)		K	
Tooth preparation for PFM restorations	Discuss the clinical consideration for tooth preparation of PFM restorations, and Shoulder porcelains.	Lecture (1) Tutorial	K	
	List the Ideal depths for cutting tooth	Lecture (1) Tutorial	K	
Capillary Technology	Describe the technology alternatives to produce porcelain metal restoration.	Lecture (1) Tutorial	K	
Bonded Platinum Foil	Explain the technique & indications related to bonded platinum foil.			
Practical	1. Demonstrate Alginate impression taking(upper and lower) 2. Prepare OSPE Spots	Practical	S	
METAL AND ALLOYS				
Introduction to Metals & Alloys	Classify the Metals & Alloys on the basis of crystal structure.	Lecture (1)	K	Class test Group assignment Class Participation
	List the uses of metals and alloy in dentistry.		K	

	Discuss the shaping of metals and alloys for dental use			Group Presentations
	List different methods of shaping (Casting, Cold working, Amalgamation)		K	
Structure & Properties of metals	Analyze on the basis of the crystal structure of metals along with its properties.	Lecture (1)	K	
Cold Working	Discuss the procedure of cold working	Lecture (1)	K	
	List the use of cold working in dentistry.	Practical/ Tutorial	S	
Structure & properties of alloys	Define the term Alloy	Lecture (1) Tutorial	K	
	classify alloys on the basis of Binary and tertiary elements		K	
	Enumerate the factors related to cooling below melting point.		K	
	Classify the solid solution on the basis of its forms (Random, ordered and interstitial solid solution)	Lecture (1) Tutorial	K	
Cooling Curves	Discuss the cooling curves used to characterize metals & alloys	Lecture (1) Tutorial	K	
Phase diagram	Describe the phase diagrams 1. Solid solution phase diagrams 2. Eutectic phase diagrams.	Lecture (1) Tutorial	K	
CASTING				
Casting Machines	Enumerate the different types of casting machines.	Lecture (1)	K	
Faults in Casting	Discuss the faults in casting 1. Finning & Bubbling 2. Incomplete Casting 3. Porosity in Casting 4. Oversized or Undersized casting	Lecture (1)	K	
Practical	Construct Plaster slab making of gypsum (3/2.5 INCHES)	Practical	S	
	Design Alphabet "B" wire bending Prepare the OSPE Spots	Practical	S	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
GOLD & ALLOYS OF NOBLE METALS				
Introduction to Gold & alloys of Noble metals	Discuss the properties and characteristics of Gold & Noble metal alloys.	Lecture (1) Tutorial	K	Class test Group assignment Class Participation Group Presentations
Pure Gold fillings (Cohesive Gold)	Explain the mechanism of fabrication of gold fillings	Lecture (1) Tutorial	K	
	Define the term Cohesive Gold	Lecture (1) Tutorial	K	
	Discuss the mechanical properties of Gold filling	Lecture (1) Tutorial	K	
	List the advantages of Gold Fillings in dentistry.			
Traditional Casting Gold Alloys	List the Indication of Casting gold alloys	Lecture (1) Tutorial	K	
	Classify Casting Gold alloys on the basis of gold content		K	
	List the uses of casting gold alloy in dentistry.		K	
	Discuss the Composition of Casting Gold alloys in detail.		K	
	Explain the biocompatibility of Gold & Metal alloys to soft tissues.	Lecture (1) Tutorial	K	
Hardening Heat treatments (Theoretical consideratio ns)	Describe the Silver-Copper system and Gold copper systems with diagrams.	Lecture (1) Tutorial	K	
Heat Treatments (Practical Consideratio ns)	Discuss the Casting procedure	Lecture (1) Tutorial	K	
Alloys with Noble metal content at least (25% but < 75%)	Classify the group of alloys on the basis of composition range		K	
	1)Low Gold Content	Lecture (1) Tutorial	K	
	2)Silver palladium alloys	Lecture (1) Tutorial	K	
Soldering & Brazing	Define the term Soldering	Lecture (1)	K	
			K	

Materials for Noble Metals	Define the term Brazing	Tutorial		
	Give the requirements of Soldering with their properties.		K	
	Give the requirements of Brazing with their properties.		K	
Noble alloys for metal bonded ceramic restorations	Discuss the uses of metal, alloys & their requirements.	Lecture (1) Tutorial	K	
	i)Thermal Stability	Lecture (1) Practical/ Tutorial	K	
	ii)Good Bonding	Lecture (1)	K	
	iii) Good Compatibility. Etc.		K	
STEEL AND WROUGHT ALLOYS				
Introduction	Define the Wrought Alloys.	Lecture (1) Practical	K	Class test Group assignment Class Participation Group Presentations
	Explain the methods to achieve alloy or metal structures.		K	
Steel	Describe the composition and properties of steel alloys, and transitions in iron- carbon phase with diagrammatic representation	Lecture (1) Practical	K	
	Define the Eutectoid alloy, Hypereutectoid alloy, Hypo-eutectoid alloy, Martensite alloy, and tempering alloy.		K	
Stainless steel	Discuss the composition and mechanism to achieve SS alloys	Lecture (1) Practical/ Tutorial	K	
	List the Uses of SS material in dentistry		K	
SS Denture bases	Discuss the methods to form SS denture base.	Lecture (1) Tutorial	K	
	List the Advantages and Disadvantages of SS denture bases.		K	
Wire	List the Uses of wires in dentistry, Requirements of a wire and its properties, and Available material.	Lecture (1) Practical/ Tutorial	K	
	Enumerate the commonly used materials for fabricating wires (SS, Gold Alloy, Co/Cr Alloy, Ni/Ti Alloy, B/Ti Alloy)		K	
BASE METAL ALLOYS				
Introduction	Describe the composition and properties of Base Metal alloys (Cobalt Chromium alloys, Nickel Chromium alloys)	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Discuss the Alloys for fixed restorations.			
Manipulation of Base metal	Explain the Methods for melting of base metal alloys	Lecture (1)	K	
	Discuss the casting of base metal alloys and electrolytic polishing			

casting alloys				
Properties	Describe the Co/Cr & Ni/Cr alloys comparison of properties of	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	1. Co/Cr alloys & type 4 gold alloys for PD			
	2. Ni/Cr alloys & type 3 gold alloys for cast restorations			
Base Metal Alloys for fixed dental restorations	Classify the (Type 1-4) with uses			
	Discuss the Mechanical properties of base metals alloys			
Base Metal Alloys for porcelain bonding	List the uses of Base Metals Alloy	Lecture (1)	K	
Metals & Alloys for Implants	Give the requirements & Classification with explanation			
	1. Sub periosteal			
	2. Blade-vent endosseous			
	3. Osseo Integrated			
Practical	1. Fabricate T spring	Practical	S	
	2. Fabricate C shaped clasp Prepare OSPE Spots			

PHARMACOLOGY				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
ANTI BACTERIAL DRUGS				
Cell Wall Synthesis Inhibitors	Distinguish between bactericidal and bacteriostatic drugs along with examples	Lecture (1) Practical/ (small group discussion)	K/A	BCQ OSPE Group Presentation Class Participation Assignment
	Classify antimicrobial drugs according to mechanism of action			
	Enumerate all cell wall synthesis inhibitor drugs	Lecture (1) Practical/ Tutorial	K/A	
	Classify penicillins according to nature and antibacterial spectrum			
	Describe the history, chemistry, Pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all Penicillins			
	Discuss the role of βlactamase inhibitors.	Lecture (1) Practical/ Tutorial	K/A	
	Classify Cephalosporins according to antibacterial spectrum			
	Describe the history, chemistry, Pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all Cephalosporins.			
	Describe the Monobactams and Carbapenems on the basis of antibacterial spectrum, pharmacokinetics and adverse effects.	Lecture (1) Practical/ Tutorial	K/A	
	Discuss the properties of Vancomycin, Teicoplanin, Daptomycin, Fosfomycin, Bacitracin and Cycloserine			BCQ OSPE Group Presentation Class Participation
	Explain the role beta-lactamase inhibitors in chemotherapy with beta lactam antibiotics			

Protein Synthesis Inhibitors				Assignment
Protein Synthesis Inhibitors	Classify protein synthesis inhibitors according to mode of action	Lecture (1) Practical/ (small group discussion)	K/A	
	Describe the role of protein synthesis in bacterial growth and multiplication			
Macrolides	Describe macrolides?	Lecture (1) Practical/ Tutorial	k/A	
	Classify macrolides?			
	Describe their pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of macrolide			
Chloramphenicol	Describe chloramphenicol	Lecture (1) Practical/ Tutorial	k/A	
	Describe their pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication chloramphenicol			
Tetracyclines and Aminoglycosides	Classify tetracycline's according to duration of action	Lecture (1) Practical/ Tutorial	K/A	
	Describe their pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication			
	Name the Aminoglycosides	Lecture (1) Practical/ Tutorial	K/A	
	Describe the pharmacokinetics, mode of action, clinical uses, toxicities and contraindications of Aminoglycosides			
Sulfonamides and Fluoroquinolones	Classify Sulfonamides on the basis of duration of action	Lecture (1) Practical/ Tutorial	K/A	
	Classify Fluoroquinolone according to antimicrobial spectrum.			

	Describe the pharmacokinetics, mode of action, clinical uses, toxicities and contraindications of Sulfonamides, Trimethoprim and Fluoroquinolone.			
Antimycobacterial Drugs	Describe Tuberculosis along with signs and symptoms	Flipped Class room (1) Practical/ Tutorial	K/A	
	Classify antimycobacterial drugs on the basis of first line and second line therapy.			
	Describe the pharmacokinetics , mode of action, therapeutic uses/indications, adverse effects and contraindication of first line antimycobacterial drugs			
Anti-Leprosy Drugs	Name the anti-leprosy drugs	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
	Discuss the pharmacokinetics, mode of action therapeutic uses/indications and adverse effects of all anti-leprotic drugs.			
Urinary Tract Infections Drugs	List the common bacteria causing UTI	Lecture (1) Practical/ Tutorial	K/A	
	Classify the drugs used for UTI on the basis of mode of action and antimicrobial spectrum			
	Describe the pharmacokinetics and pharmacodynamics of the drugs used for UTI			
IMMUNOMODULATORY DRUGS				
Immunosuppresants and Immunomodulators	Describe the meanings and major categories of Immunomodulation drugs	Lecture (1) Practical/ Tutorial	Practical/ Tutorial K/A	BCQ OSPE
	Classify immunosuppressants and immunostimulants on the basis of mode of action			
	Describe the role of each immunosuppressant			
	Describe the mechanism of action, clinical uses and toxicities of antibodies used as immunosuppressants			
	Identify the major cytokines and other immunomodulating drugs			
	Describe the role of major cytokines and other immunomodulating drugs			
	Describe the different types of allergic reactions to drugs			

RESPIRATORY DRUGS				
Antiasthmatic Drugs	Define Bronchial Asthma and Status Asthmaticus	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation
	Classify antiasthmatic drugs according to mode of action			
	Describe the pharmacokinetics and mode of action of all antiasthamatic drugs			
	Enumerate therapeutic uses/indications, adverse effects and contraindication of all antiasthmatic drugs			
	Name the drugs used to treat COPD	Lecture (1) Practical/ Tutorial	K/A	
Drugs used for Pneumonia	Explain the role of the drugs used for Pneumonia	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
	Explain the role of the drugs used for the prophylaxis of Community Acquired Pneumonia			
Anti-tussive Drugs	Describe antitussive drugs	Lecture (1) Practical/ Tutorial	K/A	
	Explain the role of the drugs that suppresses cough			
	Enumerate therapeutic uses/indications, adverse effects and contraindication of all antitussive drugs			

PATHOLOGY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
IMMUNOLOGY				
Introduction to immunity & Normal host defense	• Define immunity • Classify types of immunity according to their function • List the components of immune system • Discuss the functions of immune system • Explain Innate and acquired immunity, Active& passive Immunity	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
Adaptive immunity (I)	• Define adaptive immunity • Classify T cells according to its types. • Discuss the functions of CD4 and CD8 T cells with respect to activation, costimulation and memory formation • Discuss the effect of superantigens on T cells	Lecture (1)	K	
Adaptive immunity (II)	• Discuss the mode of activation of B cells • Discuss effector functions of B cells • Define antibody • Discuss the structure of antibody • Classify antibodies according to types • Define primary response and secondary response of antibodies • Discuss the functions of antibodies	Lecture (1)	K	
MHCs & transplantation	• Define Major Histocompatibility Complex (MHC) • Classify MHC proteins according to its classes • Define transplantation • Discuss the importance of MHC in transplantation • Classify types of transplant rejections • Define allograft rejection • Discuss HLA typing in the lab in association with transplantation	Lecture (1)	K	
Complement System	• •Define complement system • •Discuss complement system with respect to activation and regulation • •Discuss the role of complement in immunity • •Explain the clinical aspects of complement system	Lecture (1)	K	

Hypersensitivity I& II	• Define Hypersensitivity reaction, desensitization, atrophy, drug hypersensitivity • Classify hypersensitivity according to its types • Discuss the pathogenesis of types I & II hypersensitivity • Discuss various clinical presentations of type I & II hypersensitivity reactions • Discuss the treatment and prevention of	Lecture (1)	K	
Hypersensitivity III & IV	• Define Arthus reaction, Serum Sickness, Immune Complex Disease • Discuss the pathogenesis of type III & IV hypersensitivity • Discuss various clinical presentations of type III & IV hypersensitivity reactions • Discuss the treatment and prevention of type III & IV hypersensitivity • Discuss briefly Agglutination & precipitations reactions, ELISA • Discuss ABO blood groups, transfusion reactions & Rh- incompatibility.	Lecture (1)	K	
Immunodeficiency Disorders	• Define immunodeficiency • Classify immunodeficiency according to its types • Discuss various clinical presentations of immunodeficiency diseases	Lecture (1)	K	
Immunodeficiency Disorders	• Define immunodeficiency • Classify immunodeficiency according to its types • Discuss various clinical presentations of immunodeficiency diseases	Lecture (1)	K	
Tolerance & Auto-immunity disorders	• Define T & B cell tolerance, autoimmunity • Discuss the pathogenesis of autoimmune disease • Discuss various clinical presentations of autoimmune diseases	Lecture (1)	K	
Serological testing	• Discuss the following: • 1.Basic concepts (agglutination/ Precipitation) 2.Typhidot • 3.ELISA • 4.ICTe.gMalaria5.PCR basic concept	Lecture (1)	K	
	• Discuss the various methods of serological diagnosis of disease	Practical	K	
	• Perform stool examination to detect parasite. Draw and label the diagram of	Practical	K	
	• Perform the blood examination for the malarial parasite	Practical	K	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
RESPIRATION				
COPD	Define COPD. Discuss its causes. Explain its sign and symptoms.	Lecture (1)	K	
SPECIAL BACTERIOLOGY				
Gram positive Cocci	Define the Strepto coccal infection and their important properties Classify strep to coccus organisms on the basis of antigenic difference in C carbohydrate? With their examples Discuss the pathogenesis of strepto coccal infection List the clinical finding cause by strep to coccal infection Discuss the various methods of diagnosis for strepto coccal infection.	Lecture (1) Tutorial	K	BCQOSPE Group Presentation Class Participation Assignment
	Define the Staphylococcal infection with their important properties Discuss the three species of staphylococci Discuss the important features of pathogenesis by staphylococcal infection	Lecture (1) Tutorial	K	BCQOSPE Group Presentation Class Participation
	Explain the important clinical manifestation caused by Discuss the various methods of diagnosis for staphylococcal infection.			Assignment
	Define Gram positive cocci and bacilli	Practical	K	
	Discuss various lab diagnostic procedure for gram positive organisms(cocci and bacilli) Explain the coagulase and catalase test Interpret the result of coagulase and catalase test			

Gram Positive Rods	List the Gram positive bacilli.	Lecture (1)	K	BCQ OSPE Group Presentation Class Participation Assignment
	Classify the Gram positive bacilli on the basis of spore			
	Discuss the patho genesis of all gram positive bacilli			
	Enumerate the clinical findings of all Gram positive bacilli			
	Describe the lab diagnosis of Gram positive bacilli			
Gram negative Cocci	List the gram negative cocci	Lecture (1)	K	
	Explain the importance properties of Neisserias pecies			
	Discuss the patho genesis &clinical finding of Neisseria			
	Explain the lab diagnosis of Neisserias pecies			
Gram negative Rods	Classify the organism on the basis of site of infection	Lecture(1) Tutorial	K	
	Define Entero bacteria ceae and related organism			
	List the lactose fermenters and non-lactose fermenter organisms			
	Discuss the important features of E.Coli, Salmonella, Vibrio Cholera, Compylobacter, Helico bacters and			
	Describe the patho genesis and clinical finding of the above mention organisms.			
	Explain the lab diagnosis of gram negative rods			
	Demonstrate different types of biochemical reaction test for the lab diagnosis of gram negative organisms	Practical	K	
	List the Gram Negative Rod related to the respiratory tract	Lecture(1) Tutorial	K	
	Describe the Bordetella pertussis; Important properties and pathogenesis and lab diagnosis			
	Discuss briefly			
	Bacteroides, Klebseilla			
	Explain the labdiagnosis			
	Classify the myco bacterium infection into typical and atypicalmy co			BCQOSPE Group
	Describe the important properties of my cobacterium tuberculosis and Myco bacteriumleprae			

Mycobacteria	Explain the mode of transmission	Lecture(1) Tutorial	K	Presentation Class Participation Assignment
	Discuss the pathogenesis of mycobacterium tuberculosis and			
	List the clinical finding of mycobacterium tuber culosis and			
	Explain Lab diagnosis of myco bacterium tuber culosis and Mycobacterium leprae			
	Demonstrate the lab diagnostic procedures for mycobacterium tuber culosis and Myco bacterium leprae	Practical	K	

JUNIOR OPERATIVE DENTISTRY				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
Amalgam and composite restorative materials	By the end of Junior Operative lecture, students should be able to: 1. Discuss in detail classification, composition, advantages, disadvantages, indications and contraindications of the following restorative materials: - Amalgam - Composite resin	Lecture (4)	Knowledge	Flipped Classroom
Amalgam--- placement, carving and polishing in Class I Cavity	By the end of practical session students should be able to: 1. Demonstrate trituration, placement, carving, finishing, and polishing of amalgam in Class I cavity on maxillary and mandibular phantom/ extracted teeth. 2. Demonstrate handling and disposal of mercury waste	Practical Demonstration (2)	Knowledge/ Skill	Mini CEX/ OSAT DOPS
Composite Placement, finishing and polishing in Class I Cavity	By the end of practical session students should be able to: 1. Demonstrate etching, bonding followed by correct placement, curing, finishing and polishing of composite in Class I cavity on maxillary and mandibular phantom/ extracted teeth.	Practical Demonstration (2)	Knowledge/ Skill	Mini CEX DOPS
Matricing	By the end of Junior Operative lecture, students should be able to: 1. Define Matricing 2. Identify the different types of matrix bands, retainers, and wedges (Tofflemire, sectional) for amalgam and composite restorations. 3. Define the importance of using matrix bands and wedges during restoration placement. 4. Discuss various types of matrices used in Class III and Class IV composite restorations.	Lecture (2)	Knowledge	Class participation Class test

Class II Amalgam Restoration	By the end of Junior Operative lecture, students should be able to: 1. Explain features of Class II cavity design for amalgam restoration 2. Explain the significance of matricing for Class II cavity 3. Explain in detail the steps of lining, placement of amalgam, precarving, carving, post carving and finishing of an amalgam in Class II cavity	Lecture (3)	Knowledge	Class participation Class test
	By the end of Junior Operative practical session, students should be able to: 1. Prepare Class II cavity for amalgam restoration in Phantom tooth on typodont 2. Place an amalgam in a prepared Class II cavity after application of matrix band on phantom teeth. 3. Demonstrate handling and disposal of mercury waste. 4. Demonstrate polishing of amalgam restoration	Practical Demonstration (2)	Knowledge/ Skill	Mini CEX/ OSAT DOPS
Sterilization & Disinfection	By the end of Junior Operative lecture, students should be able to: 1. Differentiate among Sterilization, Disinfection and Asepsis. 2. Discuss the importance of sterilization and disinfection. 3. Discuss elements of a sterilization plan. 4. List critical, semi critical and non-critical items 5. Describe various methods used for sterilization and methods to monitor effectiveness of sterilization. 6. List chemicals that are used for disinfection. 7. Describe techniques for sterilization and disinfection of endodontic instruments. 8. Discuss disinfection of dental unit waterlines	Lecture (2)	Knowledge	Class participation Class test
	CLASS TEST / PRESENTATION / REVISION	Lecture (3)		

JUNIOR PROSTHODONTICS				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
Examination Diagnosis and Treatment planning / Evaluation of Patient	Take complete medical and dental history of patients presenting to OPD Evaluate Psychological and mental health of patients according to house's classification Discuss the drugs which affect the prosthetic treatment of the patient. Perform clinical examination of patients i) Extra oral examination i. Facial examination ii. Skin iii. Lips a) Lip length b) Lip Thickness c) Lip Mobility d) Lip support e) Smile Line iv. Neuromuscular evaluation v. Speech evaluation vi. TMJ evaluation ii) Intraoral examination i. Cheeks ii. Tongue a) Tongue size b) Tongue position c) Tongue biting iii. Frenal attachment iv. Floor of the mouth v. Maxillary tuberosity vi. Palate a) Hard Palate b) Palatal torus c) Mandibular tori d) Smoker's Palate e) Denture induced stomotitis f) Soft palate classification vii. Residual alveolar ridge classification viii. Bony Prominences ix. Undercuts x. Saliva a) Salivary flow b) Viscosity c) Xerostomia	Lecture (3)	Knowledge / skill	Class Participation

	d) Oral mucosa examination e) Inter arch space iii) Radiographic examination			
	Describe treatment planning for patients			
	Define tissue conditioning			
	Define nutritional counseling			
Impression techniques	Discuss the objectives of impression making Types of impression techniques for complete denture Classification of impression materials	Lecture (2) Tutorial	Knowledge/ skill/ practical (ideal mode)	Class participation Class test
Maxillomandibular relations / Rim formation	Discuss the Vertical relations	Lecture (2) Group Discussion Tutorial	Knowledge practical	Class Participation
	Discuss the Horizontal relations			
Occlusion	Define the basic terminologies of occlusion Describe the different type of occlusion Discuss characteristics, importance, general considerations and types of balanced occlusion Discuss advantages, disadvantages, indications, contraindications of types of occlusion Discuss labial form of occlusion rims considering the facial landmarks, fullness of upper lip, philtrum, nasolabial fold and oral commissures Construct maxillary and mandibular occlusion rims on ideal edentulous model	Lecture (3)	Knowledge / practical	Group discussion

RESEARCH				
Topic	**Objectives**	**Teaching methodology**	**Outcome**	**Assessment Tools**
Estimating sample size 1 hr	1. Identify the research question and study objectives. 2. Determine the required level of precision and confidence. 3. Specify the effect size or minimum detectable difference. 4. Choose the appropriate sample size formula (e.g., for means, proportions). 5. Calculate the required sample size using relevant parameters.	Lectures, Research meetings, small group discussions digital library sessions.	Submission &approval of Synopsis from Institutional IRB.	MCQs, Summative assignments research based.
Data collection 1hr	1. Collect data using chosen methods (e.g., surveys, interviews). 2. Ensure data quality and accuracy. 3. Maintain participant confidentiality and anonymity. 4. Enter and manage data using SPSS and/or Excel. 5. Store data securely and organize for analysis.			
Plan for analysis 2.5 hr	1. Identify the research questions and hypotheses to guide analysis. 2. Determine the level of measurement (nominal, ordinal, interval, ratio) for each variable. 3. Choose suitable statistical tests (descriptive, inferential) for data analysis. 4. Plan for data cleaning, transformation, and normalization as needed. 5. Utilize statistical software (SPSS) to perform data analysis and interpret results.			
Developing consent form	Consent Form 1. Develop a clear and concise informed			

	consent form. 2. Ensure the form includes essential elements (risks, benefits, confidentiality). 3. Obtain necessary approvals and signatures.			
budget, timeline and gantt chart for synopsis **2.5 hr**	Budget 1. Establish a detailed and realistic budget for the study. 2. Identify and estimate costs for personnel, equipment, and materials. 3. Develop a plan for budget management and contingency funding. Timeline 1. Create a logical and achievable timeline for the study. 2. Identify key milestones and deadlines. 3. Develop a plan for timeline management and adjustments. Gantt Chart 1. Construct a Gantt chart to visualize the study timeline. 2. Break down tasks into manageable chunks. 3. Establish dependencies and critical path activities.			
Guidelines for filling in the IRB form **1 hr**	1. Understand the Institutional Review Board (IRB) review process. 2. Identify required documents and information for IRB submission. 3. Complete the IRB form accurately and thoroughly. 4. Ensure compliance with ethical standards and regulations. 5. Prepare supporting documents (e.g., informed consent, protocol).			

COMMUNICATION SKILLS				
Topic	**Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
Presentation skills	• Develop a PowerPoint presentations based on principles of multimedia design	Practical (3)	Skill/ Attitude	Presentation Competition
	• Present scientific content by using MS PowerPoint presentations			
	• Respond to questions effectively in a presentation			
	• Actively listen to ensure understanding of facts and opinions and convey emotions effectively	Role Play (1)	Skill/ Attitude	OSCE
Assertive communication	• Define assertive communication	Lecture + Role Play (1)	Knowledge/ Skill/ Attitude	MCQs + Role Play + OSCE
	• Differentiate between assertive and aggressive communication			
	• Discuss the advantages of assertive communication			
	• Discuss strategies for communicating assertively			
	• Given a simulated patient, demonstrate assertive communication	Practical + Role Play (1)		

PATIENT SAFETY				
Topic	**Objectives**	**Mode of Teaching** **Lecture/ Lectures**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
Waste Management	• Define hospital or medical waste • Classify waste in hospitals • List the sources of waste • List the adverse health outcomes associated with health care waste • Name how each type of waste should be disposed • Discuss how each type of waste is best disposed	Lecture (1) + Pre Readings (1)	Knowledge	BCQs + end Lecture Test
	• Demonstrate disposing of hazardous waste according to regulatory guidelines	Practical (1)	Skill/ Attitude	OSCE
	• Describe the environmental impact of waste treatment and disposal • Explain reasons for failure of waste management • Describe strategies for improving health-care waste management	Lecture (1) + Project Based Learning (Preparation - 2) + (Presentation – 2)	Knowledge	BCQs + Project Competition

LEADERSHIP, PROFESSIONALISM & ETHICS (LeaPE)				
Topic	**Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies** **Knowledge/ Skill/ Attitude**	**Assessment Tools**
LEADERSHIP				
Honesty and Integrity	• Differentiate between the two terminologies • Discuss how and why honesty and integrity are important professionally • Discuss challenges of demonstrating honesty and integrity	TBL (2)	Knowledge/ Skill/ Attitude	MCQS
Ethics by Beauchamp and Childress	• Differentiate among the 4 principles of Ethics	Lecture Small Group Activity (1)	Knowledge	MCQS
	• Justify ethical solutions based on these 4 principles Truth telling, honesty, integrity, and respect		Knowledge/ Skill/ Attitude	MCQS
PROFESSIONALISM				
Significance of Professionalism	• Describe the factors affecting professionalism • Discuss the significance of professionalism in healthcare delivery and patient outcome	Lecture + Debate Competition (2)	Knowledge/ Skill/ Attitude	MCQS + Debate Competition

PAKISTAN STUDIES				
Topic	**Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
GOVERNMENT AND POLITICS IN PAKISTAN				
Political and Constitutional Phases	• Describe the main events and their effects on development of Pakistan during the following time periods: • From 1947-58 • From 1958-71 • From 1971-77 • From 1988-99 • From 1999 onwards	Lecture (3)	K/A	BCQ /Assignment

TERM III

COMMUNITY DENTISTRY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
Reading Dental Literature	Define dental literature.	Lecture (2) Tutorial	K	Assignment BCQ OSPE TITLE/TOPIC DESIGNING
	Explain the sources of literature.		K	
	Define Peer review		K,S	
	Discuss the limitations of peer review.		K	
	Differentiate between Text book and Peer review journals		K,S	
	Discuss all major criteria for judging the quality of a journal		K,S	
	Discuss all major criteria for judging the quality of an individual paper		K	
Evidence-Based Dentistry	Define Evidence Based Dentistry with 2 examples	Lecture (3) Tutorial	K,S	Assignment BCQ OSPE
	Discuss the rating system for evaluating the quality of literature.		K,S,A	
	Define systemic review and its significance in EBD.		K,S	
	List limitations of EBD dentistry.		K	
Fluoride: Human Health And Caries Prevention	List the Sources of fluoride intake with their optimal levels	Lecture (3) Tutorial	K	Assignment BCQ OSPE Class Presentation
	Discuss Fluoride physiology, in regards to 1. Absorption 2. Retention 3. Excretion		K	
	Discuss the relation of Fluoride and human health, with reference to Early studies and child development		K	
	Define Fluoride toxicity		K	
	Discuss mechanism of action of fluoride in caries prevention		K	
Fluoridation Of Drinking Water	Define optimal fluoride concentrations in drinking water.	Lecture (3)	K	BCQ OSPE
	Discuss all the early studies of fluoridated water.		K	
	List all of the Drinking water standards.		K	
	Describe the Caries pattern when fluoridation ceases.		K	

	Discuss the fluoridation of drinking water in schools.			
Dental Fluorosis	Define Fluorosis Discuss Risk factors for dental Fluorosis Differentiate between Dental Fluorosis and Caries	Lecture (2) Tutorial Model presentation	K K K,S	BCQ OSPE Community visit
Measuring Dental Fluorosis	Discuss criteria for Deans Fluorosis index Discuss clinical criteria and categorizations for the Tooth surface index of Fluorosis Discuss clinical criteria and scoring for Thylstrupfejerskov fluorosis index Discuss criteria for fluorosis risk index Discuss criteria for developmental defects of dental enamel index Differentiate between milder forms of dental fluorosis and non-fluoride opacities of enamel in 7 majors points	Lecture (3) Tutorial	K,S K,S K,S K,S K,S K,S	Assignment BCQ OSPE Community visit
Measuring Other Oral Conditions	Discuss clinical criteria and scoring of 1. Malocclusion 2. Cleft lip and palate 3. Oral cancer 4. Oral health impact profile General oral health assessment index Discuss the 5 stages of DHC Discuss Oral cancer, cleft lip and palate, malocclusion and TMJ disorder under following headings 1. Definition 2. Occurrence and distribution Risk factors	Lecture (2) PICTORIAL INTERACTIVE SESSION,CBL	K,S K K,S	BCQ OSPE
Oral Cancer And Other Oral Conditions	Define soft tissue precancerous lesions and conditions i.e. leukoplakia, erythroplakia Discuss the role of dental professionals in preventing oral cancer.	Lecture (2) Tutorial, INTERACTIVE PICTORIAL SESSION, CBL	K,S K	BCQ OSPE Class Presentation
UTILIZATION of fluoride in caries prevention	Discuss utilization and sources of fluoride Discuss Fluoridated school drinking water Discuss 5 types of Dietary fluoride supplements Define Professionally applied fluoride Discuss Fluoride exposures	Lecture (1) Tutorial Flipped classroom	K,A KA K K,S K	BCQ OSPE

DENTAL MATERIALS				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
ELASTIC IMPRESSION MATERIAL				
Introduction	Analyze the chemical mechanism of dental hydrocolloid.	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation Group Presentations
Reversible Hydrocolloid (Agar)	Define the agar Impression materials Discuss the manipulation, clinical consideration and properties of agar impression material. Define the term Syneresis and Imbibition	Lecture	K	
Irreversible Hydrocolloid (Alginate)	Define the Alginate Impression Materials Discuss the manipulation, clinical consideration and properties of Alginate impression.	Lecture (1) Practical/ Tutorial	K	
Decontamination	Relate the infection control with Impression materials	Lecture (1) Practical/ Tutorial	K./S	
Combined Reversible/Irreversible Technique	Compare and contrast the techniques with combined use of Reversible & Irreversible hydrocolloids.	Lecture (1) Tutorial	K/S	
Modified Alginate	Describe the modified form of alginate.	Lecture (1) Tutorial	K	
Practical	Design the Wax Setup Prepare OSPE Spots	Practical	S	
ELASTIC IMPRESSION MATERIAL (ELASTOMERS)				
Introduction	Classify elastomeric impression materials on the basis of their elasticity.	Lecture (1) Tutorial	K	Class test Group assignment Class Participation Group Presentations
Polysulphides	Describe the composition, properties, setting reaction and clinical considerations of polysulphides.	Lecture (1) Practical/ Tutorial	K	
Silicone Rubber (Condensation curing)	Explain the composition, properties, setting reaction and clinical considerations of silicone rubbers (condensation polymer)	Lecture (1) Practical/ Tutorial	K	
Silicone Rubber (Addition curing)	Discuss the composition, properties, setting reaction and clinical considerations of silicone rubbers (Addition polymer)	Lecture (1) Practical/ Tutorial	K	
Polyethers	Discuss the composition, properties, setting reaction and clinical considerations of polyethers .		K	

Comparisons of the properties of Elastomers	Compare the properties of elastomers dependent upon: Mechanical Properties Physical Properties	Lecture (1) Practical/ Tutorial	K	
Jaw Registration	Describe the recording interocclusal relationship using elastomeric Impression materials	Lecture (1)	K/S	
Practical	1. Design Wax Setup 2. Prepare OSPE Spots	Practical	S	
DENTURE BASE POLYMER				
Introduction	Define the term denture base.	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation Group Presentations
	Describe the denture base polymers	Lecture (1) Practical/ Tutorial	K/S	
	Analyze the steps and techniques of fabrication of acrylic denture base. (Injection moulding method, Dough moulding method, Pourable resin technique)		S	
Requirements of Denture base polymers	List the requirements of denture base materials depending upon its properties (Physical, Mechanical, Chemical, Biological, Miscellaneous)	Lecture (1) Practical/ Tutorial	K	
Acrylic Denture base materials	Classify the polymeric denture base materials on the basis of the composition and functions of each component.	Lecture (1) Practical/ Tutorial	K	
Mixing & Curing (Heat Curing Materials)	Explain the manipulation and curing characteristics of Acrylic denture base	Lecture (1) Practical/ Tutorial	K	
Mixing & Curing (Auto polymerizing Materials)	List the components that are cured using light source.	Lecture (1) Practical	K	
Structure of the set material	Describe the microstructure of set acrylic material.	Lecture (1) Practical/ Tutorial	K	
Properties	Discuss the physical, mechanical and chemical properties of acrylic denture base material.		K	
Modified Acrylic materials	Describe the modified acrylic materials which show increased mechanical properties.	Lecture (1) Tutorial	K	
Alternative Polymer	Define the modification of acrylics using polycarbonates		K	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
DENTURE LINNING MATERIAL				
Introduction	Classify denture lining material on the basis of uses	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation Group Presentations
Hard Reline Materials	Define the term relining.			
	Discuss the composition and properties of Hard reline material.			
Tissue Conditioners	Describe soft denture liners and its functions.	Lecture (1) Practical/ Tutorial	K	
	Discuss the requirements, composition and properties of tissue conditioners.			
Soft Lining Materials	List the requirements of permanent soft lining materials and temporary soft lining materials Describe the properties of temporary soft lining materials and permanent soft lining materials.	Lecture	K	
SelfAdministered Relining Materials	Discuss the Self-administered relining materials	Lecture (1) Practical/ Tutorial	K	
Practical	1. Fabricate Acrylic Partial Denture 2. Prepare OSPE Spots	Practical	S	
ADHESIVE RESTORATIVE MATERIAL				
Introduction	Define the adhesive restorative materials.	Lecture (1) Practical	K	Class test Group assignment Class Participation Group Presentations
	Enumerate the advantages of adhesive restorative materials,		K	
	Describe the general mechanical aspects of adhesion		K	
Acid etch systems for bonding to enamel.	Discuss the process of acid etching to enamel.	Lecture (1) Practical/ Tutorial	K	
	Identify the patterns of enamel etching		K	
	Explain the factors which affects the properties of bonding systems in detail.		K	
	Describe the role of etchant for restorative materials.		K	
Applications of Acid Etch Technique	Discuss the applications of acid etch in clinical practice	Lecture (1) Tutorial	K	
	List the indications and contraindications of composite restoration		K	
Bonding to dentine	Describe the bonding of adhesive to dentine	Lecture (1) Practical/ Tutorial	K	
	List the drawbacks of adhesive to dentine		K	
Attempts at chemical bonding	Identify the chemical links of adhesive to the tooth surface with diagrams.	Lecture (1)	K	

		Practical/ Tutorial		
Dentine Conditioning The smear layer	Define the term smear layer	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation Group Presentations
	Define the term conditioner		K	
	Discuss the commonly used dentine conditioners		K	
	List the advantages		K	
	Enlist the purpose of using dentine conditioners.		K	
Priming and bonding	Define the role of primer		K	
Current concepts in dentine bonding – the hybrid layer	Describe the different approaches developed to achieve hybrid layer formation i. Total etch method. ii. Self-Etching primer method.		K	
Current concepts in dentine bonding – the hybrid layer	Describe the different approaches developed to achieve hybrid layer formation i. Total etch method. ii. Self-Etching primer method.		K	
Classification of dentine bonding systems	Classify the dentine bonding systems according to generation	Lecture (1) Practical/ Tutorial	K	
Bonding to alloys, amalgam and ceramics	Differentiate the bond between the composite and metal by mechanical retention		S	
	Describe the systems which bond to ceramics.		K	
Bonding in Orthodontics	List the available materials to attach orthodontic brackets.	Lecture (1) Practical/ Tutorial	K	
Bond Strength and leakage measurements	Discuss the methods used for assessing adhesives strength.			
Polymerisable luting agents	Distinguish the luting agents used in association with adhesive dentine bonding agents,	Lecture (1) Practical/ Tutorial	K	
	List the types of polymerisable lutes available (Composite Resins or RMGIC)		K	
Lightly filled diacrylate resins	Describe the lightly filled diacrylate resins along with example.		K	
Chemically Active resins	Define the chemically active resin lutes		K	
	List the various types of chemically active materials i. Phosphorylated materials ii. 4META products		K	
Practicals	Fabricate Adam's clasp	Practical	S	
			S	

	Fabricate Labial bow			
			S	
	Fabricate Z spring		S	
	Prepare OSPE Spots		S	
CLASSIFICATION OF IMPRESSION MATERIAL				
Introduction	List the uses of Impression Materials in dentistry	Lecture (1) Practical	K	Class test Group assignment Class Participation Group
	Describe the procedure of Impression taking with working & setting characteristics.	/ Tutorial	K	Presentations
	Classify impression materials based on its viscosity and elasticity.		K	
Classification of Impression materials: Requirements	Describe the ideal requirements of Impression materials	Lecture (1) Practical/ Tutorial	K	
Clinical Considerations	List the clinical considerations for impression materials.	Lecture (1) Practical/ Tutorial	K	
Cross Infection Control	Explain the Patient and operator protocols in order to control the spread of cross infection.	Lecture (1) Practical	K	
NON ELASTIC IMPRESSION MATERIAL				
Introduction	List the properties of Non—elastic Impression Materials	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation Group Presentations
Impression Plaster	Discuss the composition, properties, handling characteristics and uses of impression plaster			
Impression Compound	Describe the composition, properties, handling characteristics, uses and manipulation of impression compound	Lecture (1) Tutorial	K	
Impression Waxes	Explain the composition, properties, handling characteristics, uses and manipulation of impression waxes		K	
Impression Pastes	Discuss the composition, properties, handling characteristics, uses and manipulation of impression paste	Lecture (1) Practical/ Tutorial	K	
SYNTHETIC POLYMERS				
Introduction	Analyze the chemistry of synthetic polymers.	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
Polymerization	Compare the addition and condensation reaction of polymerization with its examples.		K	
			K	

Changes occurring during polymerization	Describe the physical changes occurring during polymerization (Phase Changes, Temperature Changes, Dimensional Changes)			
Structure & Properties	Discuss the factors which control the structure and properties of polymers. (Molecular Structure, Molecular Weight, Degree of Chain branching, Crosslinking, Presence of plasticizer and fillers)	Lecture (1) Practical/ Tutorial	K	
	List the properties which characterize polymers (Glass transition Temperature, Melting Temperature)	Lecture (1) Tutorial	K	
Methods of fabricating polymer	Enumerate the Techniques for moulding and fabrication of polymers.	Lecture (1) Practical/ Tutorial	K	
RESIN BASED FILLING MATERIAL				
Introduction	Classify the filling materials based on synthetic polymers 1. acrylic resins 2. composite materials	Lecture (1) Practical	K	Class test Group assignment Class Participation Group Presentations
Acrylic Resins	Discuss the setting reaction and composition of acrylic resin	Lecture (1) Practical/ Tutorial	K	
	Discuss the Advantages and disadvantages of acrylic resin		K	
	Enumerate the mechanical properties of acrylic resins.		K	
Composite Materials	Define the term Composite.	Lecture (1) Tutorial	K	
	Describe the properties and component of composites		K	
	List the uses of composites		K	
Classification & Composition of composite	Classify composite based on i. handling characteristics ii. Filler particles iii. Application method	Lecture (1) Practical/ Tutorial	K/S	
Properties of Composite	Explain the properties of resin based restorative materials Discuss the ideal requirements of resin based restorative materials.	Lecture (1) Practical/ Tutorial	K/S	
Light activation units	State the purpose of light activation units	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation
	List the different types of light activation units		K	

Alternative Light Delivery systems	Compare the alternative light delivery systems.	Lecture (1) Practical/ Tutorial	K	Group Presentations
Compatibility and Testing	Contrast the factors regarding compatibility of intensity of t curing lights	Lecture (1) Practical/ Tutorial	K	
Setting contraction	Discuss the factors related to setting contraction of composite	Lecture (1) Practical/ Tutorial	K	
	List the steps to overcome the contraction of composite.		K	
	Describe the C –Factor	Lecture (1) Practical/ Tutorial	K	
Properties	Explain the thermal and mechanical properties of composite resin	Lecture (1) Practical/ Tutorial	K	
Fiber Reinforcement of composite structure	Discuss the various patterns of fiber loading for different levels of reinforcements in resin composites	Lecture (1) Practical/ Tutorial	K	
Fiber posts	Describe the purpose, characteristics and advantages of Fiber post	Lecture (1) Practical/ Tutorial	K	
Fiber Reinforcement for bridges &Splints	Discuss the resin composites for bridge work and splints	Lecture (1) Practical/ Tutorial	K	
Fiber Reinforcement of direct filling composites	Categorize the Fiber Reinforcement of direct filling composites.	Lecture (1) Practical/ Tutorial	K	
Clinical Handling	Enumerate the Basic properties of Cavity design for composite	Lecture (1) Practical/ Tutorial	K	
	Differentiate the bonding to enamel and dentine with composite		K	
	Explain the clinical procedure for composite filling		K	

Material Placement	Analyze the consideration to be taken to maximize quality of cure	Lecture (1) Practical/ Tutorial	K	
	Enumerate the adverse effects of polymerization shrinkage on tooth.		K	
	Describe the matrix techniques in case of establishment of proximal contacts.		K	
Finishing & Polishing	Analyze the armamentarium of composite	Lecture (1) Practical/ Tutorial	K	
	Discuss the steps required for filling and polishing of composite		K	
Repair of composite restoration	Relate the significance of composite in repair of old restorations.	Lecture (1) Practical/ Tutorial	K	
Application of composites	Explain the clinical application of composites	Lecture (1) Practical/ Tutorial	K	

PHARMACOLOGY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
ANTI VIRAL DRUGS				
Anti-viral drugs	Classify antiviral drugs according to the type of infection. Describe the pharmacokinetics. Mode of action, therapeutic uses/indications, adverse effects and contraindication of antiviral drugs.	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE Assignment
ANTI FUNGAL DRUGS				
Anti-Fungal Drugs	List the common predisposing causes of fungal infections and sites of mycotic infection. Classify antifungal drugs according to mode of action. Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all antifungal drugs	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
GASTROINTESTINAL DRUGS				
Ulcer Healing Drugs	Define peptic ulcer Classify the drugs used in acid peptic disease according to mode of action. Describe the pharmacokinetics and mode of action of all ulcer healing drugs Enumerate therapeutic uses/indications and adverse effects and contraindication of all ulcer healing drugs.	Flipped class room (1) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation
	Describe triple regimen therapy for H.pylori infection.	Lecture (1) Practical/ Tutorial		
Drugs used for constipation(laxatives)	Classify Laxatives according to mode of action Discuss the pharmacokinetics, indication and adverse effects of Osmotic Laxatives, Stool Softeners, Bulk Forming Laxatives, Stimulant Laxatives, Lubiprostone and Opioid receptor antagonists.	Lecture (1) Practical/ Tutorial	K/A	

Antidiarrheal Drugs	Discuss the different etiological types of diarrhea	Lecture (1) Practical/ Tutorial	K/A	
	Classify Antidiarrheal drugs according to mode of action.			
	Explain the mode of action of common Antidiarrheal drugs			
Drugs used for Inflammatory Bowel Disease (IBD)	Define Inflammatory Bowel Disease (IBD)	Lecture (1) Practical/ Tutorial	K/A	
	Classify the drugs used for Inflammatory Bowel Disease (IBD)			BCQ OSPE
	Explain the pharmacokinetics and pharmacodynamics of drugs used for IBD			
	Name the drugs used for Irritable Bowel Syndrome (IBS)			
	Describe the pharmacokinetics and pharmacodynamics of the drugs used for Irritable Bowel Syndrome (IBS)			
Anti-emetic drugs	Name the drugs used for Emesis	Lecture (1) Practical/ Tutorial	K/A	
	Explicate the pharmacokinetics and pharmacodynamics of the drugs used for Emesis			
	Name the drugs that promote upper GI motility			
	Explain the role of the drugs that promote upper GI motility			
ENDOCRINE DRUGS				
Hypothalamic and Pituitary Hormones	List the Hypothalamic Hormones and Anterior Pituitary Hormones	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
	Summarize the pharmacology of Growth Hormones			
	Describe the antagonists of Growth Hormones			
	Describe the indications of Gonadotropins releasing hormones.			
	Name the Posterior Pituitary Hormones	Lecture (1) Practical/ Tutorial	K/A	
	Discuss Prolactin and Prolactin antagonists			
	Summarize the pharmacology of Posterior Pituitary Hormones			
	Discuss the role thyroid hormones in the body	Lecture	K/A	BCQ

Thyroid and Anti- thyroid Drugs	Classify anti thyroid drugs according to mode of action	(1) Practical/ Tutorial		OSPE Group Presentation Class Participation
	Summarize the mechanism of action, indications, contraindications and adverse effects of thioamides			
	Explain the role of anion inhibitors, iodides radioactive iodine in the treatment of hyperthyroidism			
	Describe the mechanism of action of iodinated contrast media in the treatment of thyroid crises			
	List the adjunctive drugs used in the management of hyperthyroidism			
	List the drugs for treatment of hypothyroidism			
	Summarize the mechanism of action, indications, contraindications and adverse effects of all drugs used in treatment of hypothyroidism			
Parathyroid hormones and drugs	Describe the role of parathyroid hormone in the bone and kidney	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
	List the regulators of calcium and phosphorus balance			
	Describe the role of Vit D in the bone mineral homeostasis			
Corticosteroids agonists and antagonists	Classify Corticosteroids agonists and antagonists on basis of mechanism of action	Lecture (1) Practical/ Tutorial	K/A	
	Describe the pharmacokinetics and pharmacodynamics of Corticosteroids			
	Summarize the pharmacological role of Corticosteroids antagonists			
Gonadal hormones and inhibitors	List the Gonadal hormones	Lecture (1) Practical/ Tutorial	K/A	
	Summarize the pharmacology of estradiol			
	Classify progestins on the basis of nature.			
	Summarize the pharmacology of progestins.	Lecture (1) Practical/ Tutorial	K/A	
	Enumerate the indications, contraindications and adverse effects of gonadal hormones.			
	Classify estrogen and progesterone antagonist on basis of mode of action.			
Contraceptives	List different types of contraceptives	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
	Describe mechanism of action and pharmacological effects of oral contraceptives			
	Enumerate the indications, contraindications and adverse effects of oral contraceptives			
Androgens	Describe androgens	Lecture	K/A	

	Classify androgens according to occurrence	(1) Practical/ Tutorial		
	Discuss the indications, contraindications and adverse effects of testosterone			
	Classify Anti-androgens on the basis of chemical nature			
Insulin	Categorize the different types of Diabetes	Flipped class room (1) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation Assignment
	Classify different types of Insulin on the basis of duration of action			
	Describe the pharmacological actions of Insulin	Lecture (1) Practical/ Tutorial		
	Describe the complications of Insulin			
Oral Hypoglycemic Drugs	Classify Oral Hypoglycemic drugs on the basis of mechanism of action	Lecture (1) Practical/ (small group discussion)	K/A	
	Describe the pharmacokinetics, mode of action, indications, contraindications and adverse effects of Oral Anti-diabeticdrugs			
Bone mineral homeostasis	Classify the drugs used to regulate bone mineral and osteoporosis on the basis of mechanism of action	Lecture (1) Practical/ Tutorial		BCQ OSPE
	Describe the role of hormonal regulators and non-hormonal regulators of bone mineral	Lecture (1) Practical/ Tutorial		

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
CARDIOVASCULAR SYSTEM DRUGS				
Hypertension & its treatment	Define Hypertension	Lecture (1) Tutorial Practical/ Tutorial		BCQ OSPE Group Presentation Class Participation Assignment
	Discuss Pathophysiological features of Hypertension		K/A	
	Classify drugs use in hypertension according to mode of action.			
	Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all antihypertensive drugs.	Lecture (1) Practical/ Tutorial	K/A	
	Discuss hypertensive emergency and its treatment			
Drugs used in Angina	Define angina and types of angina	Lecture (1) Practical/ (small group discussion)	K/A	
	Describe Pathophysiology of angina			
	Classify anti-anginal drugs according to mode of action.			
	Describe the mode of action, therapeutic uses/indications, adverse effects and contraindication of all anti anginal drugs.			
Drugs used in heart failure	Define heart failure, preload and afterload	Lecture(1) Practical/ Tutorial	K/A	
	Discuss Pathophysiological features of heart failure			
	Classify drugs of heart failure according to mode of action.			
	Describe pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contra indication of all drugs used to treat heart failure.			
	Explain digitalis toxicity and its treatment			
Antiarrhythmic Drugs	Describe cardiac arrhythmias	Lecture (1) Practical/ Tutorial	K/A	
	Categorize anti-arrhythmic drugs in different classes according to mode of action.	Lecture (1) Practical/ Tutorial		
	Describe pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects			

	and contraindication of all antiarrhythmic drugs.			
Diuretics	Define Diuretics	Flipped class room (1) Practical/ Tutorial	K/A	
	Classify diuretics according to sites of action on nephron			
	Describe pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all diuretics drugs.			
Drugs used in treatment of Hyperlipidemias	Describe the role of Lipoproteins in the body	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
	Describe the types of hyper lipidemias and their treatment			
	Classify the lipid lowering drugs on the basis of mechanism of action.			
	List the Statins			
	Explain the mechanism of action, indications and adverse effects and contraindication of anti-hyperlipidemic drugs.			
Anticoagulants	Classify Anticoagulants on the basis of mechanism of action.	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation
	Describe the history, chemistry and types of Heparin			
	List the functions of Heparin			
	Describe the pharmacokinetics and mode of action, therapeutic uses/indications, adverse effects and contraindication of Heparin			
	Explain the chemistry of Warfarin	Lecture (1) Practical/ Tutorial	K/A	
	Describe the pharmacokinetics and mode of action, therapeutic uses/indications, adverse effects and contraindication of Warfarin			
	Describe treatment of toxicity of Warfarin			
Thrombolytic Drugs	List names of Thrombolytic drugs	Lecture (1) Practical/ Tutorial	K/A	
	Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of Thrombolytic drugs			
Antiplatelet drugs	List the Antiplatelet drugs	Lecture (1) Practical/ Tutorial	K/A	
	Explain the actions of Antiplatelet drugs			
	List the drugs used for bleeding disorders			
	Describe the role of plasma fractions used for bleeding disorders			

	Explain the role of different forms of Vitamin K in the treatment of bleeding disorders			
	Describe the role of Aminocaproic acid and Tranexamic acid in the treatment of bleeding			
Anemia	Define Anemias	Lecture (1) Practical/ Tutorial	K/A	
	List the drugs used for Anemia			BCQ OSPE
	Describe the pharmacokinetics and toxicity of Iron therapy			
	Describe the chemistry, pharmacokinetics and indications of Vitamin B12			
	Discuss the role of Folic acid in the treatment of Anemia	Lecture (1) Practical/ Tutorial	K/A	
	Summarize the pharmacology of Erythropoietin			
	Describe the role of and Megakaryocyte Growth Factors in the treatment of Anemia			
Prescription writing	Discuss steps for Prescription writing	Practical/ Tutorial	**K/A/S**	

PATHOLOGY				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies** **Knowledge/ Skill/ Attitude**	**Assessment Tools**
VIRAL DISEASE				
Virology: Introduction	Define viruses	Lecture (1)	K	BCQ OSPE Group Presentation Class Participation Assignment
	Compare viruses with cells and prions			
	Discuss the structure of virus			
	Summarize the replication of viruses or viral growth cycle			
	Describe the pathogenesis			
Special Virology	Classify the DNA and RNA viruses on the basis of chemical and morphologic criteria	Lecture (1)	K	
	List the hepatitis viruses	Lecture (1) Practical/Tutorial	K	
	State the important properties of all hepatitis			
	Discuss the mode of transmission of all hepatitis			
	Discuss the pathogenesis and clinical findings of hepatitis viruses			
	Describe the lab diagnosis of all hepatitis viruses			
	Explain the complication and its prevention			
	Discuss Important properties of HIV		K	
	Discuss the mode of transmission of HIV			
	Describe the pathogenesis and clinical findings of HIV virus			
	Describe the lab diagnosis of HIV			
	Explain the complication and its prevention			

	List the important properties of Dengue viruses			
	Discuss the vector and mode of transmission			
	Describe the pathogenesis and clinical findings of Dengue virus		K	
	Discuss the lab diagnosis of Dengue			
	Explain the complication and prevention			
	State the disease of Herpessimplextype1 & 2			
	Discuss the mode of transmission of herpes	Lecture (1)	K	
	Describe the pathogenesis and clinical findings of herpes virus			
	Explain the complication and prevention			
	State the disease of Herpes zoster virus			
	Discuss the mode of transmission of herpes	Lecture (1)	K	
	Describe the pathogenesis and clinical findings of herpes virus			
	Explain the complication and prevention			
	State the disease of Mumps virus			
	Discuss the mode of transmission of Mumps	Lecture (1)	K	
	Describe the pathogenesis and clinical findings of Mumps virus			
	Explain the complication and prevention			
	State the disease of influenza virus			
	Discuss the mode of transmission of influenza		K	

	Describe the pathogenesis and clinical			
	Findings of influenza virus			
	Explain the complication and prevention			
	State the disease of Polio virus	Lecture (1)	K	
	Discuss the mode of transmission of poliovirus			
	Describe the pathogenesis and clinical findings of polio virus			
	Explain the complication and prevention			
	State the disease of Rabies virus		K	
	Discuss the mode of transmission of rabies			
	Describe the pathogenesis and clinical findings of Rabies virus			
	Explain the complication and prevention			
	State the disease of Measles	Lecture (1)	K	
	Discuss the mode of transmission of measles			
	Describe the pathogenesis and clinical findings of Measles virus			
	Explain the complication and prevention			
ENVIRONMENTAL PATHOLOGY				
Environmental Pathology	Discuss effects of different chemical components of tobaccoon human body	Lecture (1)	K	BCQOSPE Group Presentation Class Participation Assignment
	Discuss effects of alcohol on human body.			
	List ten chemicals of major public health concern			
	Describe effect of Metals i.e. lead, mercury, arsenicas environmental pollutants on human body.			

MYCOTIC				
Mycology	List the four categories of medical mycoses with their related fungi	Lecture (1) Practical/Tutorial	K	BCQ OSPE Group Presentation Class Participation Assignment
	Discuss the ring worm fungal infection (dermatophytes)			
	Identify the risk factors related to dermatophytoses			
	List the clinical finding			
	Name the disease cause by Asper gillus spp	Lecture (1) Tutorial	K	
	Discuss the properties and mode of transmission			
	Describe the pathogenesis			
	Explain the lab finding			
	Name the disease cause by Candida albicans	Lecture/ practical (1)	K	
	Explain the important properties and mode of transmission			
	Discuss the pathogenesis and clinical finding of Candida Albicans			
	Describe the lab diagnosis of Candida Albicans			
	Demonstrate the procedure of lab diagnosis of Candida Albicans	Practical	K	
GIT				
Peptic ulcer	Discuss Peptic Ulcers	Lecture (1)	K	BCQOSPE Group Presentation Class Participation Assignment
	Explain Acute and chronic gastritis			
Inflammatory Bowel Diseases	Discuss IBDs			
	Discuss Crohn's disease and Ulcerative colitis			
Practical's	Identify bacteria on the basis of various biochemical reactions : • Coagulase • Catalase • Oxidase • TSI & Urease • Sensitivity testing	Practical	K	

Edema, Effusion, Hyperemia and Congestion	• Define edema, effusion, exudate, transudate, hyperemia and congestion • Define various terminologies according to morphology of edema& effusion • Discuss the pathophysiologic categories of edema • Describe the mechanism & clinical significance of edema at different sites • Describe the morphological	Lecture (1)	K	
Hemostasis	• Define hemostasis • Describe the sequence of events involved in primary & secondary hemostasis including the role of platelets, endothelium • &coagulation cascade • Describe the defects of primary & secondary hemostasis	Lecture (2) Tutorial	K	
Thrombosis & Infarction	• Define thrombosis. • Describe the factors that predispose to thrombosis • Describe the morphologic features of thrombi • List the possible fate of thrombus • Describe the clinical features of venous, arterial & cardiac thrombosis • Difference between antepartum & postmortem clots • Define infarction. • Classify infarction • Describe the morphologic features of red & white infarct • List the factors that influence	Lecture (2) Tutorial	K	
Embolism	• Define embolus • List the types of embolism • Describe the clinical manifestations & consequences of pulmonary & systemic thromboembolism. • Discuss the clinical conditions that give rise to fat & marrow embolism, air embolism & amniotic fluid embolism. • Define Disseminated Intravascular Coagulation (DIC) • Describe the pathogenesis of DIC	Lecture (1) Tutorial	K	
Shock	• Define shock • List the three major types of shock • Describe the mechanism of three major types of shock • Discuss the factors involved in the pathophysiology of septic shock • Describe the three stages of shock • List the clinical features of shock	Lecture (2) Tutorial	K	

Blood Vessels Disorders	• Describe Atherosclerosis, its pathogenesis and its types	Lecture (1)	K	
Blood Disorders	Classify Anemia. Discuss the Investigation of anemia. Discuss the Bleeding disorders.	Lecture (1)	K	
CARDIOVASCULAR SYSTEM				
IHD & RHD	Discuss is chemic heart diseases (IHD)rheumatic heart Diseases(RHD)	Lecture (1)	K	BCQ OSPE Group Presentation Class Participation Assignment
Endocarditis	Discuss endocarditis with its types			
Hypertension& its treatment	Define hypertension			
	Discuss its treatment			
	Define edema	Lecture (1)	K	
	Describe the patho-physiological features of edema			
	Define edema, ascites, hydrothorax and anasarca.			
	Describe the patho-physiology of edema with special Emphasis on CHF			
	Study the blood culture		Practical K	
	Study anerobic culture		Practical K	

JUNIOR OPERATIVE DENTISTRY				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
Class II Composite Restoration	By the end of Junior Operative lecture, students should be able to: 1. Explain features of Class II cavity design for composite restoration 2. Explain the significance of matricing for Class II cavity 3. Explain in detail the steps of etching, bonding, curing and finishing of resin composite in a Class II cavity on typodont			
	By the end of Junior Operative practical session, students should be able to: 1. Demonstrate etching, bonding followed by correct placement, curing, finishing and polishing of composite in Class I cavity on phantom/ extracted teeth	Tutorial/ Practical Demonstration (3)	Knowledge/ Skill	Mini CEX DOPS
Class III & Class IV Composite Restoration	By the end of Junior Operative lecture, students should be able to: 1. Explain features of cavity design for Class III and Class IV composite restoration 2. Explain the significance of matricing for Class III and Class IV cavities 3. Explain in detail the steps of etching, bonding, curing and finishing of a resin composite restoration in Class III and Class IV cavities	Lecture (3)	knowledge	Class Participation Socrative
	By the end of Junior Operative practical session, students should be able to: 1. Design and prepare Class III on phantom teeth 2. Perform matricing with cellulose strip and lining of Class IV cavity on phantom teeth. 3. Demonstrate polishing of composite restoration	Practical Demonstration (3)	Knowledge/ Skill	Mini CEX/ OSAT DOPS
Cross infection control	By the end of Junior Operative lecture , students should be able to: 1. Define cross infection. 2. Explain the exposure risks in dentistry, including COVID-19 3. Discuss different methods of cross	Lecture (2)	knowledge	Class Test Socrative

	infection control in dental office. 4. List universal/ standard precautions 5. Describe blood borne infections 6. Describe methods of hand hygiene 7. Discuss vaccination/ immunization of dental health care professionals 8. Discuss elements of personal protective equipment (PPE) 9. Discuss how to prevent needle stick injury 10. Discuss needle stick injury management 11. Discuss dental waste disposal 12. Discuss management of dental sharps			
	By the end of Junior Operative practical , students should be able to: 1. Demonstrate disinfection of hands before wearing gloves and after surgical procedure. 2. Demonstrate handling and capping of anesthetic needles before and after giving local anesthesia,	Tutorial (1)	Knowledge/ Skill/ attitude	Mini CEX DOPS
	CLASS TEST / PRESENTATION / REVISION	Lecture (3)		

JUNIOR PROSTHODONTICS				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
Articulators	Define articulators Explain the functions of articulator List down the types of articulators Explain the advantages and limitations of articulators Describe the purpose of an articulator Discuss the minimum and additional requirements of articulator Discuss the prosthetic use of i) Simple hinge articulator ii) The mean value articulator iii) Semi-adjustable articulator iv) Fully adjustable articulator Describe the prosthetic importance of i) Protrusive records ii) Lateral records iii) Hanau formula	Lecture (1) Practical	Knowledge/ skill / practical	Class Participation
Face bow	Describe face bow and its types	Lecture (1)	Knowledge	Class Participation
Selection of artificial teeth and arrangement of artificial teeth	Describe the objectives of teeth selection Explain the general considerations in teeth selection Describe the size of teeth Discuss the methods used to select size of teeth i) Methods using pre-extraction records ii) Methods using anthropological measurements of the patient iii) Methods using anatomical landmarks iv) Methods using theoretical concepts Describe the factors in selection of artificial teeth i) Size of face ii) Inter-arch spacing iii) Distance between the distal ends of the maxillary cusped iv) Length of lips v) Size and relation of arches	Lecture (5) Group Discussion Tutorial Practical videos	Knowledge/ skill / practical Class 1 setup om ideal model	Class Participation Class Test

	vi) Size of posterior teeth			
	Discuss the factor affecting the shade selection of artificial teeth i) Hue ii) Saturation iii) Translucency iv) Age v) Habit vi) Complexion vii) Color of eyes viii) Color of patient hair			
	Describe positioning and relationship of teeth			
	Discuss advantages and disadvantages i) Anatomic teeth ii) Non anatomic teeth			
	Explain the prosthetic importance of cusp less teeth			
	Describe features in i) Class I relationship ii) Class II relationship iii) Class III relationship			
Try-in	Discuss try-in complete denture fabrication	Lecture (1)	Knowledge	Group participation
Lab procedures for complete denture	**Discuss** the laboratory steps of fabrication of complete dentures and perform them in practical. i) Flasking/investing ii) Dewaxing iii) Trial packing of acrylic resin iv) Final closure and bench curing v) Deflasking vi) Remounting vii) Laboratory remounting viii) Finishing and polishing	Lecture (3) videos	knowledge Practical	Class Participation
Denture placement and patient education	Discuss causes of denture errors	Lecture (1) videos	knowledge	Class Participation
	Describe denture insertion and evaluation procedure			
	Explain evaluation of the processing			
	Describe evaluation of fit and comfort			
	Discuss evaluation of retention stability and support			
	Discuss i) Evaluation of occlusion ii) Evaluation of esthetic iii) Evaluation of jaw relation iv) Evaluation of speech			
	Discuss instruction and education of a new denture wear			

RESEARCH				
Topic	**Objectives**	**Teaching methodology**	**Outcome**	**Assessment Tools**
Writing synopsis **1 hr**	1. Develop a concise and clear synopsis of the research study. 2. Summarize the research background, objectives, and methodology. 3. Highlight the significance and expected outcomes of the study. 4. Ensure the synopsis is well-organized and easy to understand. 5. Adhere to required length and formatting guidelines.	Lectures, Research meetings, small group discussions digital library sessions.	Submission &approval of Synopsis from Institutional IRB.	MCQs, Summative assignments research based.
Introduction to biostatistics and types of data **1 hr**	Introduction to Biostatistics 1. Define biostatistics and its importance. 2. Explain the role of biostatistics in medical research. 3. Identify key concepts and applications of biostatistics. Types of Data 1. Classify data into qualitative (categorical) and quantitative (numerical). 2. Identify types of quantitative data (discrete, continuous). 3. Distinguish between nominal, ordinal, interval, and ratio scales.			

Introduction to SPSS: data entry **1.5 hr**	1. Familiarize with SPSS software interface. 2. Understand data entry procedures in SPSS. 3. Create a new dataset and define variables. 4. Enter and edit data accurately. 5. Save and manage SPSS data files.			

COMMUNICATION SKILLS				
Topic	**Objectives**	**Mode of Teaching Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
Poster Development	• Develop high-quality posters • Present posters clearly, concisely and within the given time limits	Practical (7)	Skill/ Attitude	Research Day Competition
Cultural Competence and sensitivity during communication	• Define cultural sensitivity, cultural competence, cultural stereotyping and ethnocentrism	Pre Readings (1)	Knowledge	BCQs + Role Play + OSCE
	• Discuss strategies demonstrating cultural competence and for avoiding cultural sensitivity, cultural stereotyping and ethnocentrism while communicating verbally and in writing	Lecture (1) Video based & Case scenario based activities (1)	Knowledge	
	• Actively listen to ensure understanding of facts and opinions and convey emotions effectively	Role Play (1)	Skill/ Attitude	OSCE

PATIENT SAFETY				
Topic	**Objectives**	**Mode of Teaching** **Lecture/ Lectures**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
Drug Safety	• Discuss the concept, inception and significance of drug safety	Lecture (2)	Knowledge	BCQs + end Lecture Test
	• Discuss the causes of drug resistance and how to minimize this			
	• List the high alert medications			
	• Discuss the rationale for these drugs being labeled as 'high alert			
	• Discuss how to use such medications (that are high alert)			
	• Write prescriptions according to prescribed protocols.	Practical (1)	Skill/ Attitude	OSCE

LEADERSHIP, PROFESSIONALISM & ETHICS (LeaPE)				
Topic	**Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
BIOETHICS				
Justice and equity	• Differentiate among equity, equality and justice	Lecture (1)	Knowledge	MCQS
	• Discuss examples of inequity, inequality and injustice in healthcare provision		Knowledge	MCQS
Privacy and confidentiality	• Differentiate between privacy and confidentiality	Lecture + Project Based Learning (2)	Knowledge/ Skill/ Attitude	MCQS
	• Identify ethical issues related to privacy & confidentiality			
	• Identify issues when confidentiality may be breached			

PAKISTAN STUDIES				
Topic	**Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
CONTEMPORARY PAKISTAN				
Economic Institutions & Issues	• Explain the structure of Pakistan's economy (Agriculture, Industry, Services sector and Trade).	Lecture (4)	K/A	BCQ /Assignment
	• Discuss the agriculture sector in Pakistan		K/A	
	• Discuss the process of Industrialization in Pakistan		K/A	
	• Explain the growth of the services sector in Pakistan (IT, Telecommunication, Trade and Banking industry).		K/A	
	• Discuss contemporary issues related to Pakistan's economy		K/A	
	• Explain the concept of 'Balance of Payment (BoP) crisis'		K/A	
	• Describe the role of foreign remittance transfers		K/A	
	• Describe the economic developments in Pakistan such as Roshan Digital Account, Financial Inclusion etc.		K/A	
	• Define 'Budget deficit'		K/A	
	• Discuss the of external factors such as Foreign aid, Foreign debt, IMF and World Bank in economic progress		K/A	
	• Describe the existing Taxation structure of Pakistan and implications for the poor		K/A	
Society and social structure	• Discuss the following issues related to Pakistan's society and social structure	Lecture (4)	K/A	BCQ /Assignment
	• Literacy in Pakistan		K/A	
	• Population growth, composition, related issues, and reforms.		K/A	
	• Population distribution and implications for resource distribution and geopolitics.		K/A	
	• Poverty trends and related reforms.		K/A	
	• Wealth concentration and regional inequality		K/A	
	• Rural-Urban migration and related issues.		K/A	
	• Issues of gender equality and developments		K/A	
	• Class, Caste and Tribal system in Pakistan		K/A	

TERM IV

COMMUNITY DENTISTRY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
Fissure sealants	Define Fissure Sealant	Lecture (3) Tutorial CBL	K	Assignment BCQ OSPE Video Demonstration
	Discuss the Historical development of fissure sealant		K	
	Discuss Rationale for fissure sealants		K	
	List the materials used in fissure sealants		K	
	Explain the procedure for fissure sealant application		K,S	
	Discuss Public and professional perspectives towards fissure sealants		K,A	
Diet and plaque control	Define cariogenic food.	Lecture (2) Tutorial	K	Assignment BCQ OSPE
	Describe cariogenicity of intrinsic and extrinsic sugars.		K	
	Discuss miller's theory of Plaque control		K	
	Discuss methods used for mechanical plaque control.		K,S,A	
	Describe and practice 5 types of brushing techniques.		K,S,A	
	Discuss caries control by dietary restrictions.		K	
	Describe methods and materials used for chemical plaque control.		K	
	List non cariogenic sugar substitutes.		K	
Restricting the use of tobacco	Discuss the Prevalence of tobacco use	Lecture (2) CBL, INTERACTIV E SESSION	K	BCQ OSPE Class Presentation
	Describe the Pathological effects of smokeless tobacco		K	
	Discuss all the methods for restricting tobacco use by CDC		K,A	
	Discuss the usage of e-cigarette		K	
	Explain the therapies for tobacco cessation and its dependency by health professionals.		K,A	
Behavioral Sciences	Define Social Sciences and its five branches	Lecture (2) Tutorial TEAM BASED LEARNING, PICTORIAL LEARNING	K	BCQ OSPE
	Define behavioral Sciences		K	
	Explain the 7 components of Behavioral Sciences		K	
	Define Behavior Management		K	
	Discuss two types of Behavior management		K	
	Discuss child psychology and its importance in dental treatment		K,S,A	
	Discuss anxiety and fear management in peadriatic dentistry		K,S,A	
			K	

	Describe pharmacological and Non-pharmacological behavior management			
Atraumatic Restorative Treatment (ART)	Discuss Principle of ART	Lecture (1), tutorial, team-based learning, CBL, Hands-on skill learning, Video Demonstration	K	BCQ,OSPE
	Discuss Materials & Instruments in ART		K	
	Describe Technique Steps in ART application		K,S	
	Discuss Advantages, Disadvantages, Indication and Contraindication of ART		K	
	Discuss Who oral health assessment form		K,S	

DENTAL MATERIALS				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
REQUIREMENT OF DENTAL CEMENTS				
Introduction	Describe the uses of cements in dentistry	Lecture (1)	K/S	Class test Group assignment Class Participation Group Presentations
	Classify the cements based on their application.	Lecture (1) Tutorial	K	
Requirements of cavity lining materials	Discuss the requirements of cements as a cavity lining material	Lecture (1) Practical/ Tutorial	K	
	• Thermal Barrier	Lecture (1)	K	
	• Chemical Barrier	Lecture (1) Practical/ Tutorial	K	
	• Electrical Barrier	Lecture (1) Tutorial	K	
	• Strength & Flow	Lecture (1) Tutorial	K	
	• Radio opacity & compatibility.	Lecture (1) Tutorial	K	
Requirements of Luting Materials	Discuss the cements as luting materials used in dentistry, List the applications of Luting materials	Lecture (1) Tutorial	K/S	
Requirements of Endodontic cements	Explain the role of cements in Endodontics with properties.	Lecture (1)	K	
Requirements of orthodontic cements	Discuss the role and properties of orthodontics cement.	Lecture (1)	K	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
CEMENTS BASED ON PHOSPHORIC ACID				
Cements	Classify the cements based on phosphoric acid	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
Zinc Phosphate cements	Explain the composition, setting reaction , manipulative variables and properties of Zinc Phosphate cements	Lecture (1) Practical	K	
Silicophosphate Cements	Describe the composition, setting reaction, manipulative variables and properties of Silicophosphate		K	
Copper Phosphate Cements	Discuss the composition, setting reaction, manipulative variables and properties of Copper Phosphate cements,		K	
CEMENTS BASED ON ORAGANOMETTALIC CHELLATE				
Introduction cements based on	Describe the organometallic chelate compounds Classify cements on the basis of Aromatic compounds.		K	Class test Group assignment Class Participation Group Presentations
Zinc Oxide Eugenol Cements	Describe the composition, setting reaction, manipulative variables and properties of Zinc oxide eugenol cement.	Lecture (1) Practical	K	
OrthoEthoxy benzoic acid (EBA) Cements	Describe the composition, setting reaction, manipulative variables and properties of Ortho ethoxy benzoic		K	
Calcium Hydroxide Cements	Describe the composition, setting reaction, manipulative variables and properties of Calcium Hydroxide Cements ,	Lecture (1) Practical/ Tutorial	K	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
POLYCARBOXYLATE CEMENTS				
Introduction	Classify cements on the basis of their restorative use (luting and lining)	Lecture (1) Tutorial	K	Class test Group assignment Class Participation Group Presentations
Polycarboxylate cements	Describe the composition, setting reaction, manipulative variables and properties of polycarboxylate cements	Lecture (1) Practical/ Tutorial	K	
GIC Cements	Describe the composition, setting reaction, manipulative variables and properties of GIC			
Resin Modified Glass Ionomer and Compomers	Describe the composition, setting reaction, manipulative variables and properties of RMGIC Describe the composition, setting reaction, manipulative variables, applications and properties of Compomers	Lecture (1) Practical/ Tutorial	K	
Practical	1. Demonstrate Alginate impression taking(upper and lower) 2. prepare OSPE Spots	Practical	S	
BIOMECHANICS, BIOMATERIALS, BIOCOMPATIBILITY				
Introduction	Define the term biomaterials.	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation Group Presentations
	Discuss the biocompatibitly of Denture base materials, Soft denture liners, Denture adhesive, implant materials, Casting alloys,Polysulphide rubber ,impression materials, bleaching agents and Latex.	Lecture (1) Practical	K	

Biocompatibility & Biological Evaluation of Materials	Define the term biocompatibility	Lecture (1)	K	
	Define the terminologies related to biomaterials, such as: • Allergy • Mutagens • Cytotoxicity		K	
	Describe the Biomaterial as scaffold.		K	
	Discuss ways to measure biocompatibility			
Biomaterial Testing	Define the term In vitro testing	Lecture (1)	K	
	Discuss in vitro testing of dentine bonding agent, Composite resin, Amalgam, Glass ionomer cements, Calcium hydro oxide, Zinc phosphate, Zinc Polycarboxylate and Zinc oxide eugenol.		K	
Biomechanics	Define the term biomechanics	Lecture (1)	K	
	Discuss the biomechanics of bone substitute		K	
Practical	Fabricate Acrylic Partial Denture Prepare OSPE Spots	Practical	S	
GLASS IONOMER CEMENTS				
Introduction	Describe the importance of composites and GIC as filling materials	Lecture		
Composition & Classification	List the advantages and disadvantages of composites		K	
	List the advantages and disadvantages of GIC		K	
	Describe the properties of Resin Modified GIC		K	
	List the classification and composition of Modified composites			
	List the classification and composition of Resin Modified GIC.			
Setting Characteristics	Discuss the setting reactions of Resin Modified GIC, Modified composites and Ginomers.	Lecture (1) Practical/ Tutorial	K	
Properties	Describe the mechanical and physical properties of Modified GIC and Modified Composites.		K	
Advantages	List the advantages and disadvantages of the modifications of GIC and composite.		K	
Clinical Handling	Discuss the handling characteristics of clinical techniques of GIC and Composites		K	

Introduction	Explain the importance of Glass Ionomer Restorative materials in dentistry.	Lecture (1)	K	
Composition	Enumerate the composition of GIC Cements with role of each component.		K	
	List the mode of dispension of GIC			
Setting Reaction	Discuss the different stages of setting reaction of GIC.	Lecture (1) Tutorial	K	
Properties	Explain the properties and requirments of GIC	Lecture (1) Practical/ Tutorial	K	
Cermets	Describe the properties, composition, manufacturing and setting reaction of cermets.	Lecture (1) Practical/ Tutorial	K	
Application & Clinical handling notes	List the indications, handling and application of GIC			
Dentine Surface Treatment	Explain the role of GIC in dentine surface treatments.			
Matrix Techniques	Enumerate the Matrix band techniques in class II restorations	Lecture (1)	K	
Finishing & polishing	Discuss the finishing and polishing of GIC.	Lecture (1)	K	
Moisture control during placement	Explain the methods of moisture control for GIC.	Lecture (1) Tutorial	K	
Use as fissure sealants	Discuss GIC as a fissure sealant			
GIC as an adhesive cavity lining (Sandwich Technique)	Describe the uses of GIC in open and close sandwich technique.	Lecture (1)	K	
ART (Atraumatic restorative Techniques)	Explain the role of GIC in ART.	Lecture (1) Tutorial	K	
RESIN MODIFIED GLASS INOMER CEMENT				
Composition & Classification	Describe the properties of Resin Modified GIC	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	List the classification and composition of Modified composites		K	
	List the classification and composition of Resin Modified GIC.		K	
Setting Characteristics	Discuss the setting reactions of Resin Modified GIC, Modified composites and Ginomers.		K	

Properties	Describe the mechanical and physical properties of Modified GIC and Modified Composites.	Lecture (1) Practical/ Tutorial	K	
Advantages	List the advantages and disadvantages of the modifications of GIC and composite.		S	
TEMPORARY CROWN AND BRIDGE				
crown and bridges	Define the temporary crown and bridges	Lecture (1) Practical/ Tutorial	K	Class test Group assignment Class Participation Group Presentations
	Enumerate the indications of temporary crown and bridge	Lecture (1) Tutorial	K	
Available materials	List the Ideal requirements of materials used for temporary crown and bridges List the materials used for cementation of temporary crown and bridges.	Lecture (1) Practical/ Tutorial	K	
Properties	Discuss the Mechanical and physical properties for temporary crown and bridge.		K	
Introduction	Define the Artificial teeth	Lecture (1) Practical/ Tutorial	K	
	Differentiate between acrylic and porcelain teeth.	Lecture (1) Tutorial	K	
Requirements	List the ideal requirements of artificial teeth.	Lecture (1) Practical/ Tutorial	K	
Available Materials	List the materials and techniques for Production of artificial teeth.	Lecture (1) Practical	K	
Properties	Compare the properties of acrylic teeth and porcelain teeth	Lecture (1) Practical/ Tutorial	K	
ENDODONTIC MATERIAL				
Introduction	Describe the importance of Endodontic Materials.	Lecture (1) Practical	K	Class test Group assignment Class Participation Group Presentations
	Discuss the steps of Root canal preparations Discuss the purpose of Endodontics Treatment List the Indication of Endodontic Treatment.		K	
Irrigation & Lubricants	List the different types of irrigant solutions Discuss the properties of Ideal Irrigants, Describe the role of each Irrigation Solution.	Lecture (1) Practical/ Tutorial	K	

Intra Canal Medicaments	List the different type of intracanal medications Discuss the indication of Intra canal medicaments in Endodontic treatment.	Lecture (1)	K	
Endodontic Obturation materials	Discuss the compostion of Endodontic obturation materials (GuttaPercha) List the advantages of GuttaPercha List the Disadvantages of GuttaPercha	Lecture (1)	K	
Sealants	Discuss the Ideal Properties of root canal sealer List the requirements of root canal sealer	Lecture (1)	K	
Bulk Filling Materials	Explain the role of bulk filling materials Discuss the properties of bulk filling material	Lecture (1)	K	Class test Group assignment Class Participation Group Presentations
	Differentiate the types of bulk filling material		K	
Materials for root canal repair and periradicular surgery	List the Materials for root canal repair and periradicular surgery	Lecture (1)	K	
Ethical Handling	Discuss the Handling required for cleaning,shaping, and obturation of Root canal spaces	Lecture (1)	K/S	
Techniques for Obturating	Describe the procedure of different techniques of obturating canals (Cold Packing, Thermal Packing)	Lecture (1)	K/S	
Practicals	Construct Plaster slab making of Gypsum (¾ inches)	Practical	S	

PHARMACOLOGY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
VITAMINS				
Vitamins and minerals	Enumerate water and lipid soluble vitamins Describe the role of all vitamins and minerals Discuss the diseases caused by vitamin deficiency and its management.	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
ANTI PROTOZOAL AND ANTI PARASITIC				
Anti Protozoal Drugs	List the protozoal diseases Define malaria Discuss different types of plasmodia Classify anti-malarial drugs according to mode of action. Describe the pharmacokinetics and mode of action, therapeutic uses/indications, adverse effects and contraindication of all antimalarial drugs	Lecture (1) Practical/ Tutorial	K/A	BCQ OSPE
	Classify anti amoebic drugs on the basis of mode of action Name the drugs used for pneumocystosis, toxoplasmosis,trypanosomiasis and leaishmaniasis Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of anti ameobic drugs	Lecture (1) Practical/ Tutorial	K/A	
Antihelminthic drugs	Classify anti-helminthic drugs according to type of infection Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of anti-helminthic drugs	Lecture (1) Practical/ Tutorial	K/A	

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
ANTI NEOPLASTIC DRUGS				
Cancer Chemotherapy	Describe the cell cycle kinetics Classify anticancer drugs according to mode of action Discuss the mechanism by which tumor cells develop drug resistance Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of anticancer drugs	Lecture (2) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation Assignment
CENTRAL NERVOUS SYSTEM DRUGS				
Sedatives and Hypnotics	Differentiate between the terms sedative and hypnotic Classify sedative hypnotic drugs according to mode of action Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of sedative hypnotic drugs Discuss the symptoms and management of overdose of sedative hypnotics and withdrawal from physiologic dependence	Lecture (2) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation
Alcohol	Describe the clinical uses of alcohol Differentiate between the ethanol, methanol and ethylene glycol Explain the pharmacokinetics and pharmacodynamics of ethanol Define fetal alcohol syndrome Discuss management of alcohol poisoning Describe symptoms and management of alcohol withdrawal Discuss the toxicity and treatment of methanol and ethylene glycol	Lecture (2) Practical/ Tutorial	K/A	BCQ OSPE
Anti-Epileptic Drugs	Categorize the different forms of epilepsy Classify antiepileptic drugs on the basis of treatment	Lecture (2)	K/A	BCQ OSPE

	Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of antiepileptic drugs	Practical/ Tutorial		Group Presentation
General Anesthesia	Classify general anesthetics according to use	Lecture (2) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Assignment
	Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of general anesthetics			
Local Anesthesia	Define local anesthetic	Lecture (2) Practical/ Tutorial	K/A	
	Classify local anesthetics on the basis of chemical structure.			
	Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of all local anesthetics.			
Skeletal Muscle Relaxants	Classify skeletal muscle relaxants on the basis of mode of action	Lecture (2) Practical/ Tutorial	K/A	BCQ OSPE
	Describe the pharmacokinetics and pharmacodynamics of depolarizing drugs			
	Describe the pharmacokinetics and pharmacodynamics of non-depolarizing drugs			
	Describe the pharmacodynamics of spasmolytic drugs			
Anti-Parkinsonism Drugs	Describe parkinsonism	Lecture (1) Practical/ Tutorial	K/A	BCQ
	Classify the drugs used for parkinsonism on the basis of mode of action			
	Describe the pharmacokinetics , mode of action, therapeutic uses/indications, adverse effects and contraindication of anti-parkinson drugs			
	Describe the mechanisms by which levodopa, dopamine receptor agonists, selegiline and Muscarinic blocking drugs alleviate parkinsonism			
Drugs use for Alzheimer's	Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindications of anti-***Alzheimer's*** drugs	Lecture (1) Practical/ Tutorial	K/A	BCQ
Anti-Psychotic Drugs	Classify antipsychotic drugs on the basis of generations.	Lecture (2) Practical/ Tutorial	K/A	BCQ
	Describe the pharmacokinetics, mode of action, therapeutic uses/indications, adverse effects and contraindication of antipsychotic drugs			
	Identify the bipolar disorder according to mode of action			

	List the alternative drugs used in bipolar disorder			
	Describe the pharmacokinetics and pharmacodynamics of lithium			
Anti-Depressants	Classify the antidepressant drugs on the basis of mechanism of action	Lecture (2) Practical/ Tutorial	K/A	BCQ OSPE
	Describe the pharmacokinetics, pharmacodynamics, therapeutic uses/indications, adverse effects and contraindication of antidepressant drugs			
Opioids Analgesics And Antagonists	Classify Opioids on the basis of severity of action.	Lecture (2) Practical/ Tutorial	K/A	BCQ OSPE Group Presentation Class Participation Assignment
	Name Opioid agonists, partial agonists and Opioid antagonists			
	Mention the endogenous Opioid peptides and Opioid receptors			
	List the Opioids used for antitussive effects and for antidiarrheal effects			
	Discuss the major drugs that are commonly abused			
	Describe the signs and symptoms of overdose with and withdrawal from CNS stimulants, Opioid analgesics and Sedative Hypnotics including Ethanol	Lecture (1) Practical/ Tutorial	K/A	
	Explain the most likely causes of death from commonly abused drugs			
	Discuss the pharmacokinetics and pharmacodynamics of most important drugs used in the management of tremor, Huntington's disease and drug –induced dyskinesia and restless legs syndrome.			

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
ANTI SEPTIC AND DENTAL PHARMACOLOGY				
Antiseptics and Disinfectants	Define antiseptics, disinfectants and sterilants Classify antiseptics and disinfectants on the basis of mode of action Describe the pharmacodynamics of commonly used antiseptics and disinfectants	Lecture (1) Practical/ Tutorial	K/A	BCQs
Dental Pharmacology	Define dentifrices, obtundants, antiseptics, mummifying agents and mouthwashes Discuss the role of mouthwash in oral cavity and types of mouthwash List anti-caries agents Discuss the role of fluoride in caries control Explain fluoride toxicity and its treatment Define dentine hypersensitivity Discuss different methods for the treatment of dentine hypersensitivity.	Lecture (2) Practical/ Tutorial	K/A	BCQs

PATHOLOGY				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
NUTRITIONAL PATHOLOGY				
Nutritional pathology	List the three main categories of nutritional disorders.	Lecture (2)	K	BCQ OSPE Group Presentation Class Participation Assignment
	List main nutritional disorders.			
	Define mal nutrition			
	List the major causes of mal nutrition. Define Protein-Energy Malnutrition			
	Compare and contrast the following types of protein-energy malnutrition: marasmus, kwashiorkor, merasmic kwashiorkor, secondary protien-energy malnutrition with regard to: etiology and pathogenesis, effects on protein stores, physical findings, laboratory findings and morphologic features.			
	Compare anorexia nervosa and bulimia.			
	Define obesity and discuss its patho-physiology briefly.			
	Categorize vitamin deficiencies.			
	List fat-soluble vitamins and discuss deficiency states of each with regard to: causes, morphologic changes and clinical findings.			
	List the water-soluble vitamins and discuss deficiency states of each with regard to: causes, morphologic changes and clinical findings.			
	List the morphologic changes and clinical manifestations caused by deficiency of: Folic acid, Iron, iodine, calcium, zinc, and copper.			

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
GENETICS				
Introduction to Genetics	Discuss the basic concepts of genetics including DNA and RNA structure, Mendel's Laws of inheritance and Pedigree Chart	Lecture (1)	K	BCQ OSPE Group Presentation Class Participation Assignment
Mutations	List the different types of mutations in the coding and non-coding regions of genes	Lecture (1)		
	Distinguish between the different types of mutations in the coding and non-coding regions of genes that result in phenotypic change			
	Differentiate between spontaneous and induced mutations			
	Explain how a point mutations or frame shift mutation in a gene may alter the activity of the protein it encodes Interactive Lectures			
Transmission pattern of single gene disorders	Define single gene disorders	Lecture (1)	K	
	List different types of single gene disorders			
	List characteristics of single gene which gives variation in expression of diseases			
	Describe genetic changes which occur in these disorders			
Patho physiology of Inheritance	Explain the patho-physiology of classical and non-classical mode of inheritance of genetic diseases	Lecture (1) Small Group Discussion	K	
	Discuss the clinical features of important genetic disorders which includes Down's syndrome, Turner's syndrome, Cystic Fibrosis, Sickle Cell Anemia, Thalassemia			
	List different techniques used for prenatal diagnosis			

NEOPLASIA				
Introduction to Neoplasia	• Define Neoplasia & terminologies related to it. • Classify tumors with examples. • Discuss Nomenclature of benign and malignant tumors with respect to tissue of origin	Lecture (1) Practical	K	BCQ OSPE Group Presentation Class Participation Assignment
Gross & Microscopy of Benign & Malignant tumors	• Describe characteristic features of benign & malignant tumors • Define Anaplasia, Metaplasia, Dysplasia, Metastasis • Define cell Differentiation and de-differentiation • Discuss all the components and morphological features of anaplasia • Discuss Local Invasion of tumors • Discuss Pathways of Spread of malignant tumors • Compare features of Benign and Malignant Tumors	Lecture (1) Tutorial	K	
Epidemiology of Cancer	• Discuss the global Impact of cancer • List the Environmental Factors involved in the pathogenesis of malignancy • Discuss different types of occupational Cancers • Define Acquired Predisposing Conditions leading to cancer development. • Discuss association between Chronic Inflammatory States and Cancer • Discuss the role of genetic predisposition and Interactions between Environmental and Inherited factors in cancer development	Lecture (1) Tutorial	K	BCQ OSPE Group Presentation Class Participation Assignment

Molecular Basis of cancer I & II	• List Four classes of normal regulatory genes with respect to neoplasia • Discuss Stepwise Accumulation of driver and passenger mutations • Describe Cellular and Molecular Hallmarks of Cancer • Define oncogenes • Define Proto-oncogenes, and Oncoproteins • Classify oncogenes according to their mode of action and associated tumors • Define Tumor Suppressor Genes • Classify tumor suppressor genes according to their mode of action and associated tumors • Discuss RB gene with respect to its role in tumor development • Discuss p53 gene with respect to its role in tumor development • Define the Warburg Effect and angiogenesis • Define Evasion of Programmed Cell Death (Apoptosis) • Discuss the Stem Cell–Like Properties of Cancer Cells • Discuss the effect of angiogenesis on tumor progression • Discuss local Invasion and distant metastasis in neoplastic lesions • Explain the molecular basis of Multistep- Carcinogenesis	Lecture (2) Tutorial	K	
Carcinogenic agents	• Define Chemical Carcinogenesis, Radiation Carcinogenesis, Microbial Carcinogenesis • Classify chemical and radiation carcinogens according to their types and modes of action • Classify microbial carcinogenesis according to the Viral and Bacterial involvement	Lecture (1) Tutorial	K	BCQ OSPE Group Presentation Class Participation

Grading, staging & clinical effects of Neoplasia	• Define Grading and Staging of Tumors • Define Cancer Cachexia • Classify Paraneoplastic Syndromes according to their clinical effects and association with various tumors	Lecture (1) Tutorial	K	Assignment
Lab diagnosis of cancer & Tumor markers	• Discuss different types of Laboratory investigations used for Diagnosis of Cancer • Classify Tumor Markers according to types and mode of action	Lecture (1)	K	
PARASITIC AND PROTOZOAL DISEASES				
Protozoa	Define parasite	Lecture (1) Practical	K	BCQ OSPE Group Presentation Class Participation Assignment
	Classify the medically important parasite			
	List the intestinal protozoa			
	Explain the mode of transmission of both protozoa			
	Discuss the life cycle and pathogenesis of Entamoeba Histolytica and Giardia			
	List the clinical findings and lab diagnosis of both protozoa			
	List the blood and tissue protozoa	Lecture (1) Tutorial	K	BCQOSPE Group Presentation Class Participation Assignment
	List the plasmodium species			
	Name the disease and vector of plasmodium species			
	Identify the risk factors of malaria			
	Describe the life cycle of plasmodium species			
	Explain the pathogenesis and epidemiology of plasmodium species			
	Discuss the clinical findings of malaria			
	Interpret lab diagnosis of plasmodium species			

	List the four major pathogen of Leishmania Name the diseases and vector	Lecture (1) Practical	K	
	Describe the life cycle and pathogenesis			
	List the clinical findings			
	Name the procedure required for lab diagnosis.			

Topic	Learning Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Nematodes	Name and define the Hookworms			BCQ OSPE Group Presentation Class Participation Assignment
	Discuss the life cycle			
	Describe the pathogenesis and clinical findings			
	Explain the lab diagnosis.			
	Name and define the roundworms		K	
	Name the disease cause by ASCARIS			
	Describe the lifecycle			
	Discuss the pathogenesis and clinical findings			
	Identify the lab diagnosis.			
	Name and define the pinworm	Lecture (1)	K	
	Name the disease cause by Enterobius vermicularis			
	Describe the life cycle			
	Discuss the pathogenesis and clinical findings			
	Name the technique use for lab diagnosis			
Cestodes	Name and define the Cestodes	Lecture (1)	K	
	Discuss the mode of transmission of all cestodes			
	Describe the lifecycle of all cestodes			
	List the clinical finding of all cestodes			
	Explain the lab diagnosis of all cestodes			

JUNIOR OPERATIVE DENTISTRY				
Topic	**Learning Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
Pits and fissure sealants	By the end of Junior Operative lecture, students should be able to: 1. Discuss the indications, types and method of placement of pits and fissures sealants.	Lecture (2)	knowledge	Class Test Socrative
Class V GIC restorations	By the end of Junior Operative lecture session, students should be able to: 1. Give indications for Class V Glass Ionomer Cement restorations 2. Describe features of Class V restoration.	Lecture (2)	knowledge	Flipped Classroom
	By the end of practical session students should be able to: 1. Design and prepare cavity for class V Glass Ionomer Cement restoration on phantom/extracted teeth 2. Demonstrate correct technique for mixing, placement and finishing of GIC and RMGIC in Class V cavity on phantom /extracted teeth.	Practical Demonstration (3)	knowledge / Skill	Mini CEX/ OSAT DOPS
Class V I Composite restoration	By the end of Junior Operative lecture, students should be able to: 1. Give indications for Class VI composite restoration. 2. Describe features for Class VI composite restoration.	Lecture (2)	knowledge	Class participation
	By the end of practical session students should be able to: 1. Design and prepare cavity for class VI composite restoration. 2. Demonstrate placement of composite in Class VI cavity.	Practical Demonstration (2)	knowledge / Skill	Mini CEX/ OSAT
	CLASS TEST / PRESENTATION / REVISION	Lecture (4)		

JUNIOR PROSTHODONTICS				
Topic	**Learning Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
FIXED PROSTHODONTICS				
Introduction to fixed prosthodontics	Define the basic terminologies pertinent to fixed prosthodontics Discuss the applied anatomy and physiology for temporomandibular joint, muscles of mastication and dentition Describe Posselt's Envelop of Motion	Lecture (1)	knowledge	Class participation
Basics of fixed partial denture	Define the basic terminologies pertinent to fixed partial dentures Discuss the various components and types of fixed partial dentures Discuss the indications and contraindications for fixed partial dentures	Lecture (2) Tutorial	knowledge	Class participation
Crown and its types	Discuss the various partial and full coverage indirect restorations Describe the principles of tooth preparation for indirect prosthesis Discuss the indications, contraindications, required clinical assessment and steps of preparation for provision of inlay and onlay. Discuss the materials, impression techniques, clinical and laboratory procedures for the fabrication of indirect prosthesis Describe the latest innovations including CAD-CAM Technology	Lecture (2) Tutorial Practical	Knowledge Skill/Practical PFM Crown preparation	Class participation Class test

RESEARCH				
Topic	**Objectives**	**Teaching methodology**	**Outcome**	**Assessment Tools**
Basic concepts of descriptive statistics 1hr	1. Define descriptive statistics and its purpose. 2. Calculate measures of central tendency (mean, median, mode). 3. Calculate measures of variability (range, variance, standard deviation). 4. Understand and interpret data distribution (skewness, kurtosis). 5. Apply basic concepts to real-world data using SPSS.	Lectures, Research meetings, small group discussions digital library sessions.	Submission &approval of Synopsis from Institutional IRB.	MCQs, Summative assignments research based.
Basic concepts of inferential statistics 1hr	1. Define inferential statistics and its purpose. 2. Understand the concept of sampling distribution 3. Explain the difference between population and sample parameters 4. Apply hypothesis testing concept (null, alternative, p-value) 5. Interpret results of statistical testing using SPSS			
Summarizing and displaying categorical data:	1. Summarize categorical data using frequency distributions.			

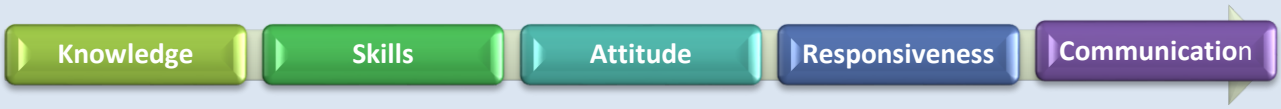
frequencies, tables and graphs 1.5 hr	2. Construct frequency tables and interpret results. 3. Create and interpret bar charts, pie charts, and histograms. 4. Use SPSS to generate frequency tables and graphs. 5. Effectively communicate results through clear and informative displays.			
Summarizing and displaying categorical data: frequencies, tables and graphs 1.5 hr	1. Summarize categorical data using frequency distributions. 2. Construct frequency tables and interpret results. 3. Create and interpret bar charts, pie charts, and histograms. 4. Use SPSS to generate frequency tables and graphs. 5. Effectively communicate results through clear and informative displays.			
Displaying Scale data and the concept of normal and skewed distribution 1.5 hr	1. Summarize and display scale data using histograms and stem-and-leaf plots. 2. Understand the concept of normal distribution and its characteristics. 3. Identify and interpret skewed distributions (positively, negatively). 4. Use SPSS to generate histograms and normality plots. 5. Interpret results to determine if			

	data follows a normal distribution.			
Summarizing scale data: measure of central tendency 1.5 hr	1. Calculate and interpret measures of central tendency (mean, median, mode). 2. Understand the advantages and limitations of each measure. 3. Apply the appropriate measure of central tendency for different types of data. 4. Use SPSS to calculate measures of central tendency. 5. Interpret results to understand the central tendency of the data.			
Summarizing scale data: measure of dispersion 1.5	1. Calculate and interpret measures of dispersion (range, variance, standard deviation). 2. Understand the advantages and limitations of each measure. 3. Apply the appropriate measure of dispersion for different types of data. 4. Use SPSS to calculate measures of dispersion. 5. Interpret results to understand the spread of the data.			

LEADERSHIP, PROFESSIONALISM & ETHICS (LeaPE)				
Topic	**Objectives**	**Mode of Teaching** **Lecture/ Tutorials**	**KSA Competencies Knowledge/ Skill/ Attitude**	**Assessment Tools**
BIOETHICS				
Informed Consent in Clinical Practice	• Define informed consent • Describe the principles, types, process and criteria for informed consent • List the criteria for giving valid consent by the patient • Explain the role of consent in relation to medical examination • Identify context in which informed consent may not be obtained	Lecture + Case Based Learning (2)	Knowledge/ Skill/ Attitude	MCQS
Medical Error and Negligence	• Differentiate among medical error, negligence and misconduct. • Describe the methods to avoid them and how to defend against negligence.	Lecture + Role Play (2)	Knowledge/ Skill/ Attitude	MCQS

PAKISTAN STUDIES				
Topic	**Objectives**	**Mode of Teaching** Lecture/ Tutorials	**KSA Competencies** Knowledge/ Skill/ Attitude	**Assessment Tools**
CONTEMPORARY PAKISTAN				
Ethnicity	• Explain the ethnic structure of Pakistan	Lecture (1)	K/A	BCQ /Assignment
	• Discuss Interprovincial conflicts, Intra provincial conflicts of ethnicity in Pakistan,		K/A	
	• Discuss the inclusive and exclusive trends based on Ethnicity and their implications on Pakistan		K/A	
Foreign policy of Pakistan and Challenges	• Foreign policy of Pakistan (Aims and objectives)	Lecture (2)	K/A	BCQ /Assignment
	• Pakistan and World powers (Russia, United States and China), Pakistan's relations with SAARC states, Middle East countries and Europe, Emerging Power centers and Pakistan		K/A	
	• Overview of demographic, social, economic, global and political challenges and resolutions		K/A	

GUIDE TO CLINICAL SKILL LAB (COD)

Introduction	Clinicians are defined by their skill sets. From listening to procedures the continuum of skills that are garnered by learners and dental students are myriad. We believe learning is a life-long process. The emphasis on skill acquisition is one of the key features of the competency based curriculum and in many ways is its soul. The competency based undergraduate curriculum provides a framework for learning and assessing skills. The Clinical skill laboratory provides a supportive environment in which learners can acquire and practice skills and be observed and assessed. As well as promoting personal professional development, PDC aims to maintain and develop competencies (knowledge, skills and attitudes) of the individual student and health care worker, essential for meeting the changing needs of patients and the health care delivery system, responding to the new challenges from the scientific development in medicine and dentistry, and meeting the evolving requirements of society.
	
Vision	The Clinical Skill Laboratory will be a local center of excellence and innovation for health care simulation, education, acquisition of skills, research, and health system integration to ensure patient safety
Mission	The Clinical Skill laboratory mission is in accord with the mission of College of dentistry (LCMD). The Clinical Skill laboratory will provide a replica of the patient care environment where students can apply cognitive, psychomotor, and affective skills and instructors can facilitate learning and objectively measure student performance and competency
Goals	• The goal of skill lab is to create an artificial replication of the real world situation in which students can gain knowledge and psychomotor skills and be able to critically think through complex scenarios in a safe and non-threatening environment. • Develop new technical skills and refresh current competencies • Playing a critical role in shaping patient safety initiatives by national and institutional assessment of needs for simulation-based education • Keep up-to-date on best practices • Learn how to incorporate the latest technologies, new learning methods and educational strategies into teaching. • Explore inter-professional education • Establishing local, regional and national partnerships • Advancing the field of health care simulation through research and dissemination of our work in relevant local, regional and national forums • Targeting multi-disciplinary health care teams, helping all members understand their roles and communicate effectively
Skills Lab Protocols For Students	• Information shall be forwarded to all students regarding respective skill session a week prior through timetable.

	• Punctuality and regularity is mandatory for all the students. • Students are bound to follow safety guidelines of skill lab • Student should follow the infection control protocols. All students should wear face masks in Skill lab premises and maintain social distancing. • Logbook should be filled by students at the end of each session and should be signed by their respective supervisor/instructor • At the end of session final assessment of the student should be done through questionnaire/test and attendance will be marked after clearing it. • The attendance of the sessions will be counted in internal evaluations • At the end of the session, students should be provided with the feedback forms in which they give feedback
Skills Lab Safety Guidelines	• The following guidelines for the smooth running of Skills and Simulation lab are presented and the students are expected to follow these. • All students are encouraged to follow infection control protocols • All students are directed to keep all their belongings in a separate area dedicated for this purpose. • No student is allowed to use mobile phones into the learning area of skills lab. • They are strictly prohibited to write anything on the manikins, tables, walls and blends etc. • Needles and blades used in skills lab should not be reused and should be disposed of in the nearest sharps container. • Soiled linen should be immediately sent to laundry. • All tubes, catheters, dressings, tape, etc. must be removed and the area cleaned appropriately upon completion of simulated exercises. • Manikins are to be left on the tables and not moved unless directed by the instructor. • All drainage bags must be emptied, disposed of or cleaned appropriately for later use. • Students who use the skills lab will keep the confidentiality and privacy of manikins. This rule will apply to all students who want to enter and use the skill lab manikins and any violation will result in disciplinary action against that student. • Students are not to be left unattended by faculty or staff at any time. • The doors to skills lab should be locked at all times when not in use. • A first aid kit will be available all the time in the skill lab to be used in case of any injury to the student or faculty. • No food and drinks will be allowed in skills lab. • Students, staff and faculty must be aware that some of the equipment and supplies in the skill lab contains latex. Those with a known sensitivity / allergy to latex should contact the Director or coordinator. All users who suffer from a latex sensitivity / allergy should familiarize themselves with the policy and take precautions while using or handling latex parts by wearing non-latex gloves. • Unauthorized persons are not allowed in the labs at any time. • In case of any needle stick injury, they will report immediately to instructor/coordinator/staff and follow the guide lines
Nominated Faculty	Coordinator PDC (Skill Lab) COD: Dr. Amna Rehman (Assistant Professor Oral and Maxillofacial Surgery) Members: Dr. Samer (Instructor skill lab)

PROFESSIONAL DEVELOPMENT CELL (SKILL LAB)				
Competencies	**Learning Objectives**	**Teaching & learning Activities**	**Assessment tools**	**Outcomes**
Prescription writing	At the end of the session student of Second year BDS, should be able to prescribe according to WHO guidelines.	Small group discussion, CBL, Samples writing	Mini CEX, OSCE	By the end of the training program, students of second year BDS should be able to : Formulate the prescription
Basic Life Support(BLS) Introduction and Observation	At the end of the session student of second year BDS, should be able to, • Analyze the conditions which needs BLS provision. • Describe the method of Cardiopulmonary resuscitation in sequence. • Describe the management of chocking in infants and adults • Translate the steps of BLS provision	Video, Practical demonstration on Manikin		Recognize the essential life saving techniques regarding management of choking and cardiac arrest
General Physical Examination	At the end of the session student of Second year BDS, should be able to • Perform the complete general physical examination with empathy. • Document the physical findings • Interpret, the abnormal signs in general physical examination	Practical demonstration followed by self-practice on Simulated patient		Perform the general physical examination

CODE OF CONDUCT

STUDENT'S CODE OF CONDUCT

PURPOSE:

The purpose is to determine and set out general standards of conduct expected of student, provide examples of conduct that may be subject to disciplinary action by the institute and set out the process and procedures that it will follow when an allegation of non-academic misconduct is made. Students are expected to be aware of, and to conduct themselves in accordance with this Code.

Failure to fulfill these responsibilities may result in the withdrawal of privileges or the imposition of sanctions.

APPLICATION:

This Code applies to conduct that:

a) Occurs on or near the premises of the Institute and Hostel.
b) Occurs elsewhere in the course of activities sponsored by the institute, or where the conduct is alleged to adversely affect, disrupt, or interfere with another person's reasonable participation in Institute's programs or activities; or
c) Occurs in the context of a relationship between the student and a third party that involves the student's standing, status, or academic record at the Institute

STUDENTS' GENERAL CONDUCT AND BEHAVIOUR:

GENERAL CONDUCT:

1. **Identity Card:**

Students shall always carry the identity card issued by LCMD and must be displayed within college premises. Students without ID card may not be allowed to enter the college premises.

Faculty members, student affair, administration staff and security staff are authorized to check ID cards at any time.

2. **Respect and Discipline:**

a) Students shall abide by rules and regulations of LCMD
b) Students shall behave in a civilized manner during their stay in college. They must be co- operative with fellow students, faculty and staff and must not indulge in any action that is humiliating for others.
c) Students shall avoid sitting on stairs, floors, and hallways.
d) Students shall avoid gathering and shouting near the lecture halls, labs, office areas etc.
e) Students shall avoid using mobile phones during lectures/practicals/tutorials/clinicals/ and in library

f) Students shall present themselves with dignity befitting their status as mature, law abiding and responsible person and show tolerance toward religious, ethical, social and other differences.
g) Students must not enter into any kind of monetary dealings with the teaching and non-teaching staff of the college, nor offer any gifts or gratifications in any form to them with a view to ease or resolve their academic related matters
h) Refrain from any activity which is subversive of discipline and will bring the institute into disrepute

3. Inappropriate use of language:
Students shall not use any such language or words that disturbs the other person emotionally or psychologically and/or is insulting.

4. Outing during classes:
Students are to stay within the campus during the schedule of their classes/practicals/tutorials/ clinicals/exams. Should going out of the campus during these timings, should seek permission in writing from HoDs/ Principal/Registrar/Incharge Student Affairs.

5. Usage of college premises:
Students must leave the college building after their classes are over unless they have specific assigned tasks or want to avail the library facilities. They are not expected to loiter in the college before or after their college timings.

6. Substance abuse and addictions:
Students at no cost are expected to get into substance abuse as use of drugs and alcohol. If found involved in these will lead to strict disciplinary action. Intoxicants as smoking, sheesha, tobacco, pan, chalia gutka chewing are strictly prohibited in college.

7. Possession of items:
Students shall have in their possession only those items allowed by law and rules and/or college policies and rules

DRESS CODE:

1. **Principles:**

Dress code is based on following principles:

- Safety and respect
- Self-worth and self discipline
- Cleanliness and hygiene
- Appropriateness to the learning environment
- Accordance to the social and cultural values

2. **General Attire**

- Wearing and displaying of student ID cards
- Wearing of Doctor's white coat (for students of clinical years, surgical scrubs may be worn instead according to policy of the department of rotation)
- Wearing of proper attire

Proper attire for Males:

- Formal shirt/dress pants(Shalwar Kameez allowed on Fridays only) that are clean and ironed
- Formal shoes along with socks
- T-shirts, jeans,bermudas,shorts,sandals, knocking heels not allowed
- Short hair (no longer than nape of neck)
- Punk /spiked hairstyle not allowed
- Trimmed or shaved beard
- Neatly cut nails
- Visible tattoos not allowed

Proper attire for Females:

- Presentable, decent concealing dress that is clean and ironed.
- T-shirts, jeans. knocking heels not allowed
- Neatly tied hair
- Rattling jewelry not allowed
- Dupattas / chadders to be tucked inside doctor's white coat
- Doctor's white coat to be donned over the abayas (if worn by someone)
- Neatly cut nails
- Visible tattoos not allowed

3. **Library Rules:**

a. **Decorum:**

- Students shall maintain silence in the library and shall not disturb others
- Smoking eating drinking talking chewing laughing is strictly prohibited in library
- Use of mobile phones is strictly prohibited in library
- While entering the library the students shall leave their personal belonging like bags, personal books, helmets etc at the counter outside library

b. **Damage to library property**

Student shall not deface, mark, cut, mutilate or damage the reading material of the library in any way. Those found doing so may be fined apart from being asked to pay the cost of the damage.

4. **Handling Of College Property:**
   - College's property is an asset for the students. It is the responsibility of the students not only to keep the property intact but to protect it as well
   - Any item; book, journal, models, mannequins, bones, instruments, devices etc issued to the students to complete the assigned task must be returned in due time and in original condition. In case of any mishandling or damage, student would be asked to pay the cost of the damage
   - Students must take care not to deface any part of the college premises. Writing on the walls is not allowed, pasting of any kind of posters , charts pamphlets etc of any kind is not permitted without prior permission of the Principal
   - Tampering with notice board is prohibited

5. **Ragging (Zero Tolerance):**
   - Ragging in any form is strictly prohibited and most stringent actions will be taken against anyone caught ragging.
   - Decorum Any conduct by students by words spoken, written or physical action that has the effect of teasing, treating or handling with rudeness or ridiculing a fresher or any other student or causes annoyance, hardship, physical or psychological trauma or raises a fear or apprehension will not be tolerated and is liable to strict disciplinary action
   - Any act of financial extortion or forceful expenditure burden put on fresher or any other student is also ragging and at no cost will be tolerated.

DISCIPLINARY ACTION AGAINST STUDENT

The disciplinary action taken when the facts of the case warrant it will be determined by the severity of the offence. Persistent breaches of the same or similar rules will lead to progressively more severe action occurring.

A. INFORMAL ACTION

Where an allegation of misconduct is made, it does not necessarily follow that disciplinary procedures have to be invoked. Where the decision maker (HOD/ supervisor/ incharge) judges it appropriate, the allegation may be resolved informally by the provision of advice for future behavior. If the misconduct is Minor in nature and the concerned student accepts responsibility of the act, the concerned authority as the head of department, immediate supervisor, or incharge would counsel the student alongwith constructive feedback.

B. FORMAL ACTION:

1. MINOR OR INTRMEDIATE MISCONDUCT

1. STAGE 1- VERBAL WARNING

If the conduct does not meet acceptable standards, and where previous such minor misconducts have been committed and past counseling/s have not improved the conduct, a formal VERBAL WARNING would be given. The student will be informed of the reason of the warning. A brief note of verbal warning will be kept in student's record file in the concerned department. The HOD/ supervisor/incharge of concerned department will also send this note to the student affairs department for record keeping. However, it will be disregarded for disciplinary action after 2 months, subject to satisfactory conduct and performance.

Upto 2 VERBAL WARNINGS may be given

Only HOD/supervisors/incharges are authorized to give verbal warnings.

2. STAGE 2- FIRST WRITTEN WARNING

If the misconduct is more serious/ moderate in nature, or if it is repeated within 6 months of the previous verbal warnings or even if another nature of minor misconduct is committed by the same student, a FIRST WRITTEN WARNING will be handed over to him/her. This will be inclusive of the details of the complaint and inappropriate circumstances, the improvement required and time scale within which to achieve that improvement. It will also warn the student that action under STAGE- 3 will be considered if there is no satisfactory improvement or any repetition of misconduct.

The student shall be asked to submit a written apology admitting the misconduct

and agreeing not to redo the same in other case will be responsible for the consequences.

A copy of the written warning alongwith the apology letter will be kept in the student's record file in the concerned department. One copy will be sent to the student affairs department which will keep it in the student's record file. However, it will be disregarded for disciplinary action after 6 months, subject to satisfactory conduct and performance.

Only HOD/supervisors/incharges will be authorized to give first written warnings.

3. STAGE 3- FINAL WRITTEN WARNING

If there is still failure to improve and/or conduct or performance is still unsatisfactory, a FINAL WRITTEN WARNING will be handed over to the student. This will give details of the complaints, the improvement required and time scale within which to achieve that improvement.

It will also warn the student that case will be forwarded to the Student affairs department and strict disciplinary action under STAGE- 4 will be considered if there is no satisfactory improvement or any repetition of misconduct.

The student shall be asked to submit a written apology admitting the repetition of misconduct and agreeing not to redo the same in other case will be responsible for the consequences.

A copy of the written warning alongwith the apology letter will be kept in the student's record file in the concerned department. One copy will be sent to the student affairs department which will keep it in the student's record file. However, it will be disregarded for disciplinary action after 3 months, subject to satisfactory conduct and performance

Only the highest designation of the concerned department as HOD/incharge will be authorized to give final written warnings.

Depending upon the policy of the individual department, or as per discretion of the HOD/incharge of the concerned department, the HOD/ incharge in addition to giving the final written warning may impose penalties as:

- Suspension from academic activities; lectures/ tutorials, practicals/OPDs for upto 3 days to 7 days
- Allowed to attend academic activities but being marked as absent
- Suspension to avail library facilities or no permission to participate in cultural or sports events.
- Assignments/tasks
- Sent for community service
- Restitution for damage of property
- Monetary or any other fine

4. STAGE 4- REFERAL TO STUDENT AFFAIRS

If the conduct or performance is still unsatisfactory and the student fails to reach the prescribed standards within 3 months of the final written warning or if another misconduct of serious nature is committed by the same student then a written complaint in the incident form duly signed by the HOD and mentioning the details along with the copies of previous notes of verbal and written warnings (if any) shall be forwarded to the department of Student Affairs to deal with the case.
Till the time the Student Affairs decides the action to be taken, the student may be suspended from all sorts of academic activities or even visiting the institute.
Only highest designation in the dept; HOD / incharge is authorized to file this complaint.
After receiving the complaint, the Student Affair Incharge will consider the allegations and may do any of the following:

- Meet with the student suspected of the misconduct;
- investigate further by any meansdeemed necessary and appropriate;or
- refer the matter to the Chairperson Disciplinary Committee

If the Student Affair Incharge believes that the suspected misconduct does not require corrective action or that the Committee is not likely to find facts that would result in disciplinary action, the Student Affair Incharge may discontinue further action. Upon discontinuing further action, the Student Affair Incharge will notify the Committee and the student named in the allegations in writing of their decision.
If the Student Affair Incharge believes that non-academic misconduct has occurred, he may determine what, if any, steps the student could take to correct or resolve the matter. If the student agrees to the resolution proposed by the Student Affair Incharge, an agreement outlining the steps to be taken by the student will be drawn up and signed by the student. If the student does not agree, the student affair will refer the matter to the Disciplinary Committee.

2. GROSS MISCONDUCT

If the incharge student affairs finds the misconduct committed by the student to be of Gross nature then the student affairs will directly forward the case to disciplinary committee or a written complaint in the incident form duly signed by the HOD and mentioning the details may be directly forwarded to the Disciplinary Committee to deal with the case, by the concerned HOD. A copy of the complaint/incident form would be sent to the department of student affairs to be kept into the student's record file.
The student shall be informed of all the proceedings.
Till the time the disciplinary committee decides the action to be taken, the student shall be suspended from all sorts of academic activities or even visiting the institute.
Only highest designation in the dept; HOD / incharge is authorized to file this complaint

C. THE PROCEDURE AND THE DISCIPLINARY HEARING:

- Where necessary, prior to any disciplinary hearing by the committee, an investigation will be conducted into the circumstances of the alleged offence. The purpose of this investigation will be to establish a fair and balanced view of the facts relating to any disciplinary allegations.
- The investigation may involve interviewing and taking statements from the alleged student and any witnesses and/or reviewing relevant documents. Investigative interviews are solely for the purpose of fact finding and no disciplinary action would be taken until the hearing has been held.
- The investigator/s would be one or more of the members of the disciplinary committee in addition to the incharge student affairs
- Proceedings will be treated in confidence and records kept as confidential as practically possible.
- If decided by the committee the student may be suspended from all academic activities during the investigation. However, this suspension is not a disciplinary action and does not imply that the decision has already been made.
- At the conclusion of the investigation, the investigator/s will write the findings and present it to the chair disciplinary committee together with copies of statements, interview notes and any other evidence that has been collected within 3 working days.
- Based upon the investigation, the chair disciplinary committee will decide, whether the matter can be resolved informally without recourse to the formal hearing or if a disciplinary hearing needs to be arranged.
- In case a disciplinary hearing needs to be arranged, the student will be informed about the date, time and place, either verbally or in written.
- Failure to attend the hearing without any valid reason, by the student, will be treated as misconduct in itself.
- The purpose of the disciplinary hearing is to review the evidence and the enable the student to respond to any allegations that have been made against him.
- The hearing will be inclusive of all members of the Disciplinary Committee and presence of the investigator would be must.(if any member, secretary or chair of the committee is a part of the incidence or involved in any way, will not be included in the entire process)
- The student will NOT have a right to call for a witness or an advocate.
- The chair may recall any of the witnesses or interviewees if required.
- The chair may call for a meeting with parents of the student
- The hearing may have additional sittings if further investigations are required.
- Within 5 working days of the hearing, the committee shall present the report alongwith its conclusive decision to the Principals, College of Dentistry, and/or College of Medicine.
- The Principal/s shall make the final decision.
- The student shall be informed once final decision has been made by the Principal/s.
- The committee reserves the right to omit any of the above mentioned stages or

procedure if and when the need is felt and depending upon the gravity of the misconduct and the circumstances.

- An adequate record of the all the proceedings shall be maintained

D. LEVELS OF DISCIPLINARY ACTIONS FOLLOWING HEARING:

In arriving at a decision to what sanctions to impose for violation of code of conduct, depending upon the nature of infraction and the extent and gravity of the conduct, the Committee may decide to impose any of the following sanctions:

- Written apology and undertaking from the student and/or parents
- Withholding/ withdrawing scholarship/ fellowship and other benefits
- Debarring from appearing in test/ examination or other evaluation processes
- Withholding test /exam results
- Debarring from representing the institution in any regional, national or international meet, tournament, festival etc.
- Monetary fine
- Restitution for the damage of property
- Prolonged suspension from academic, Co curricular /extra curricular activities. (in certain circumstances, readmission may be required following completion of suspension period)
- Suspension from hostel
- Cancellation of admission
- Rustication/expulsion from institution for an indefinite period or permanent(in which case student will not be considered to readmission)
- FIR with local police in case of student has alleged to have committed a criminal offence

E. APPEAL:

Any student who believes he/she has been disciplined unjustly may pursue a grievance within 5 working days of the receiving decision from the committee.(this excludes those misconducts that fall under the zero tolerance policy)

F. ZERO TOLERANCE:

Zero tolerance refers to the set of discipline policies and practices that mandate predetermined consequences that are typically severe, punitive and enforced with immediate effect. Circumstances where the accused would be liable to expulsion from institute at first offence include but not limited to:

- A serious threat of violence against another student, faculty or staff
- Actual violence or physical assault
- Supplying illegal drugs to others in the college
- Sexual assault
- Carrying and using banned items as weapons
- Ragging of students within college and/or hostel premises

TYPES OF MISCONDUCT BY STUDENTS

Misconduct means conduct prejudiced to good order or working discipline contrary to LCMD's regulations and /or student's code of conduct

A. MINOR MISCONDUCT

Minor misconduct refers to the behavior which breaches the standards of conduct set out in the STUDENT'S CODE OF CONDUCT (2.1C), but where the extent, seriousness or impact of the breach is not substantial. However, misconducts that are committed repeatedly even when the student has previously been counseled about the standards of conduct required by the LCMD will not be considered as minor.

It is not possible to include each and every type of act that is labeled as misconduct. However following is the list that provides examples of Minor Misconduct. In addition is to be highlighted that inclusion of an example in the list does not mean that the misconduct can only be dealt with as minor: judgments will always be needed to be made about the scale of the misconduct and any aggravating circumstances which may justify the misconduct being dealt with as Gross Misconduct

- Verbal abuse or intimidation
- Failure to comply with explicit rules or regulations particularly in non-designated areas: smoking in premises, eating pan chalia gutka, talking loudly in library, causing disturbance in lectures, practical's and examinations, entering into unauthorized area, littering in college
- Failure to accomplish assigned tasks by the superiors
- Uninformed absenteeism and late arrivals and early leaves.
- Refusal to respond to reasonable requests by senior faculty or non-faculty staff, e.g. refusing to confirm identity when asking to do so, refusing to wait for the turn or stand in a queue, refusing to obey when asked to not to sit on floors, stairways etc
- Causing distress to others by excessive or unacceptable levels of noise
- Causing minor damage to property as defacing or tearing of library books
- Anti – social behavior which causes distress to others and/or reputational harm to LCMD's relationship with its stake holders.
- Violation of dress-code of LCMD
- Playing any games at inappropriate places like corridors, lecture halls etc.
- Wastage of water and electricity
- Meaninglessly arguing with the seniors with no justification of view point
- Sleeping during academic sessions
- Misuse of college's property

B. MODERATE MISCONDUCT

All those minor misconducts committed repeatedly and intentionally, to damage or stop the work process, even after student counseling and advice may be classified as moderate misconduct but may not be limited to these.

C. GROSS MISCONDUCT

A Gross Misconduct is an act or behavior that is harmful or dangerous influence to others at the institute typically involving flagrant or willful violation of law, policy or standards of performance or conduct. Gross Misconduct may result in any level of discipline up to and including immediate dismissal at the Disciplinary Committee's discretion. Examples of acts classified under Gross Misconduct include but may not be limited to these:

- Verbal abuse or intimidation to the level that is highly objectionable,
- Ragging and/or bullying
- Violent behavior or that causing physical harm
- Sexual harassment
- Serious negligence which causes unacceptable loss, damage or injury
- Serious violation of health and safety rules jeopardizing the health and safety of self and/or others
- Possession and/or consumption of alcohol or intention to supply
- Possession and/or consumption of substances of abuse or intention to supply
- Possession of weapons or dangerous instruments or intention to supply
- Taking recourse to unfair means during examination and assessment.
- Damage to or destruction of LCMD's property; equipment devices of the institute rendering it useless.
- Damage to or destruction of private property of fellows, senior and/or junior faculty or non-faculty staff, patients or other visitors.
- Anti-social activities against the Institute and/or State
- Breach of security
- Disrespect to the faculty or non-faculty staff to the point that it is threatening
- Possession / use of pornographic material(books, magazines, CDs, internet)
- Publishing /distributing materials that may be damage /tarnish LCMDs image
- Gambling in any form
- Indulging in any form of criminal activities
- Affiliation active involvement in political activities within campus
- Theft, fraud, corruption and deliberate falsification of records
- Unauthorized possession of institute's items, such as documents, exam papers, keys or ID cards etc. with the intention to misuse them.
- Forgery or furnishing false information regarding of one's identity, marks, qualification etc
- Bribing an employee of college with the intention of inducing the employee to perform unauthorized/illegal job for one's own benefit.
- Serious repeated and intentional violations of LCMD's rules and regulations and code of conduct even after giving of written warnings will be considered as Gross

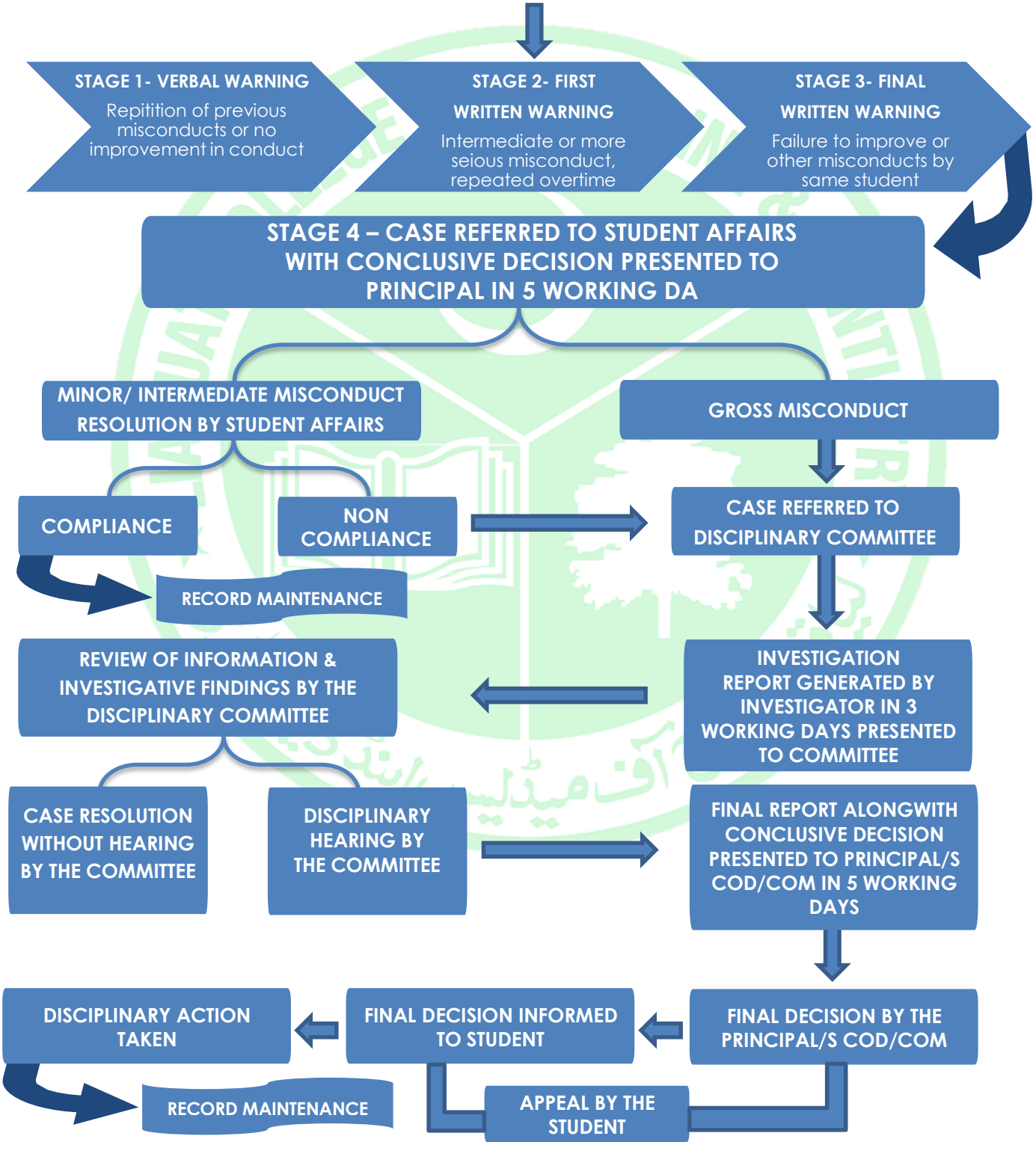
FLOW CHART OF SOPs IN CASE OF BREACH OF CODE OF CONDUCT BY THE STUDENT

A. INFORMAL ACTION

Minor misconduct, first time, student accepts responsibility; case resolved by counseling and advice by HOD

B. FORMAL ACTION

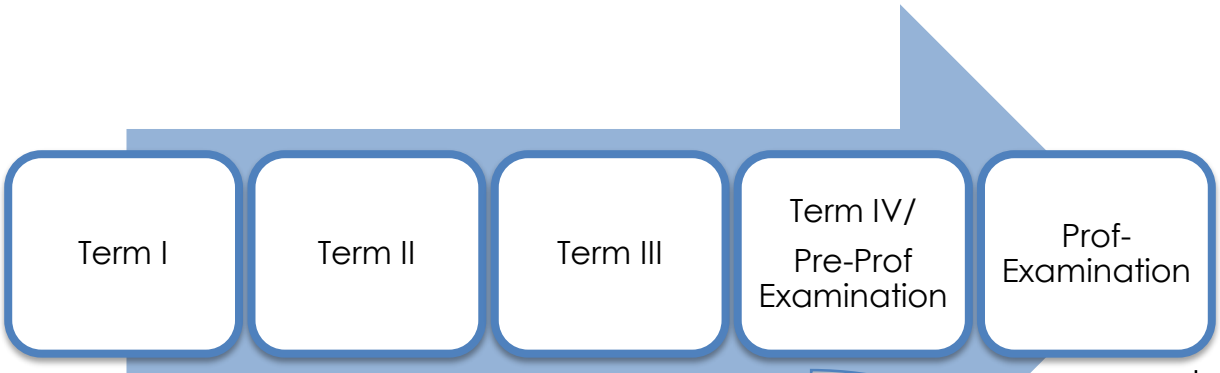
Minor misconduct or intermediate misconduct or repetition



RECOMMENDED BOOKS

COMMUNITY DENTISTRY	•Burt and Eklund's Dentistry , Dental Practice, and the community •Essentials of public health dentistry, Soben Peter
DENTAL MATERIALS	•Applied Dental Materials McCabe 15th Edition (Text Book) •Craig's Restorative Dental Materials 15th Edition •PHILLIPS SCIENCE of DENTAL MATERIALS 13th Edition
PATHOLOGY	•Robbin's Basic of Pathology •Jawetz Microbiology (Levinson)
PHARMACOLOGY	•Katzung 15th Edition •Lippincot 7th Edition •Katzung Review 14th Edition •Pretest Pharmacology 14th Edition Reference Book

EXAMINATION



Continuous Assessment:

This will include:
1. Term I
2. Term II
3. Term III
4. Term IV/ Pre-Prof Examination
5. Prof Examination

Continuous Assessment will have a weightage of 20 % of all Exams. The college will send your continuous assessment marks directly to JSMU.

Prof-Exam conducted by JSMU will include:

1. Theory paper of One Best Answer
2. OSPE Exam
3. Continuous Assessment results

SCHEME OF EXAMINATION

The following scheme of examination has been approved by the competent authority for the year 2025.

TOS				
Exam	MCQs	OSPE		Internal Evaluation
		Observed Station	Unobserved Station	
Term I	50	3*	7*	-
Term II	50	3*	7*	-
Term III	50	8*	2*	-
Pre-Prof.	90	10**	4*	10 + 10

* **5 Marks Each**

** **10 Marks Each**

MARKS DISTRIBUTION ACCORDING TO JINNAH SINDH MEDICAL UNIVERSITY

SUBJECT	THEORY EXAM (ONE BEST ANSWER)	PRACTICAL EXAM (OSPE)	INTERNAL EVALUATION/ CONTINUOUS ASSESMENT	TOTAL MARKS
PHARMACOLOGY	90	90	20	200
PATHOLOGY	90	90	20	200
COMMUNITY DENTISTRY	90	90	20	200
DENTAL MATERIALS	90	90	20	200
PAKISTAN STUDIES	80	-	20	100
			GRAND TOTAL	900

INTERNAL EVALUATION

S. No.	Name	Roll No.	Enrolment #	Internal Evaluation for Theory Exam							
				Term Exam Result (1-10 marks)							
				Examination Department							
				Term 1*		Term 2*		Term 3*		Appeared in All Term Exams*	Total Marks
				Present (1.5)	Pass (1.5)	Present (1.5)	Pass (1.5)	Present (1.5)	Pass (1.5)	Score (01)	(10)

* Marks will only be awarded if the student is **PRESENT** & **PASSES** both the **THEORY** & **OSPE** exams; otherwise, **NO MARKS** will be given

Internal Evaluation for OSPE Exam										
Attendance (0-3 marks)				PBL/SGD/Tutorials (1 mark)		Presentations (1 mark)	Class Tests (1 mark)			Assignment (1 mark)
Student Affairs				Basic Sciences Departments		DHPE	Basic Sciences Departments			Basic Sciences Departments
Above 90% (03)	80-89% (02)	75-79% (01)	< 75% (0)	Attended > 75% (01)	< 75% (0)	Presented (1) / Not Presented (0)	Appeared in < 50% (0)	Appeared in >50% (0.5)	Appeared & Passed in >50% (01)	Submitted (1) / Not Submitted (0)

Internal Evaluation for OSPE Exam					Total (10 Marks)
Journals/Log Book/ Grade Book (2 marks)			Co-curricular Activities (1 mark)		
Basic Sciences Departments			Co-curricular Committee		
Not Completed (0)	Completed (01)	Completed & Certified (02)	Attended < 50% (0.5)	Attended > 50% (01)	

INSTRUCTIONS FOR THE STUDENT

Attire:

❖ All Students must wear white lab coat with name tags / ID- Cards and college monogram

Girls:

❖Culturally and socially acceptable dressing

❖ No excessive make-up and ornaments

❖ Hair properly set and tied up

❖ Proper sandals or shoes no stilettos or slippers

Boys:

❖Decent dressing

❖Neatly pressed and clean pant / Shalwar Kameez

❖ Shirt tucked in pant

❖Only Shoes no slippers or sandals

❖Hair properly cut and set with clean shaved or well-groomed beard

Discipline:

❖ Students are not allowed to roam around in the college in their spare time

❖ Students are advised not to talk loudly in the corridor/classes/lab/wards/OPD

❖ Use of mobile phone during classes/lab/wards/test/examination is strictly prohibited

❖Drinks and eatables are not allowed specifically in class rooms except in cafeteria and common room

Damage/Loss:

❖ Students should take care of their belongings, the college will not be responsible for any losses

❖Any damage/loss of college's equipment/asset by student will have to be compensated by students (caution money)

Library Timings:

❖ Monday to Friday 8am to 8pm

❖ Saturday 9am to 4pm

Attendance:

❖The eligibility to appear in the university examination is 75% & above.

❖The university examination forms will only be issued on 75% of cumulative attendance.

❖The 75% of each student overall attendance comprises of:

❖Lectures/ OPD/ Wards/ Tutorials 60%

❖Assignments & Assessments (module/ term/ Pre-Prof Exam.) 15%

❖It is mandatory for each student to appear at least in any two of the internal college based examinations i.e. (module/ term/ Pre-Prof Exam.)

❖Exam had two components i.e. theory and OSCE; each student shall appear in both and attendance will mark as double (one lecture & one OPD/Practical); in case only appear in either OSPE or Theory will be considered absent for the entire subject.

❖Passing all module/ term/ Pro-Prof examination had additional advantage i.e. each theory exam. (Two lectures) and each OSCE/ OSPE (two OPD/Practical attendance)

❖Students appearing in supplementary exam (one/two papers) should have to attend all lecture/wards/OPDs/Tutorial, whereas students with supplementary exam in three-four subjects will be allowed to resume schedule classes soon after their last subject exam

As per given SOP' s by the Examination Department, all students shall follow the rules & regulations strictly

Interdictions:

❖ Use of narcotics in any form in LCMD, DSH and LCSSH, will not be tolerated

❖ Smoking is strictly prohibited

❖Students should not indulge in any political activities

Students who fail to comply with the LCMD policies, strict action may be taken by the Department of Student Affairs and LCMD Disciplinary Committee.

DEPARTMENT OF STUDENT AFFAIRS

Students should contact Department of Student Affairs for complains/grievances, attendance issues, counseling sessions, mentoring sessions or any student related matters

Addressing any other department is strongly discouraged and will be taken into account by Department of Student Affairs

An Affidavit is required by the obtained by the student to follow the rules policies of the institution; otherwise their examination form may not be issued.