

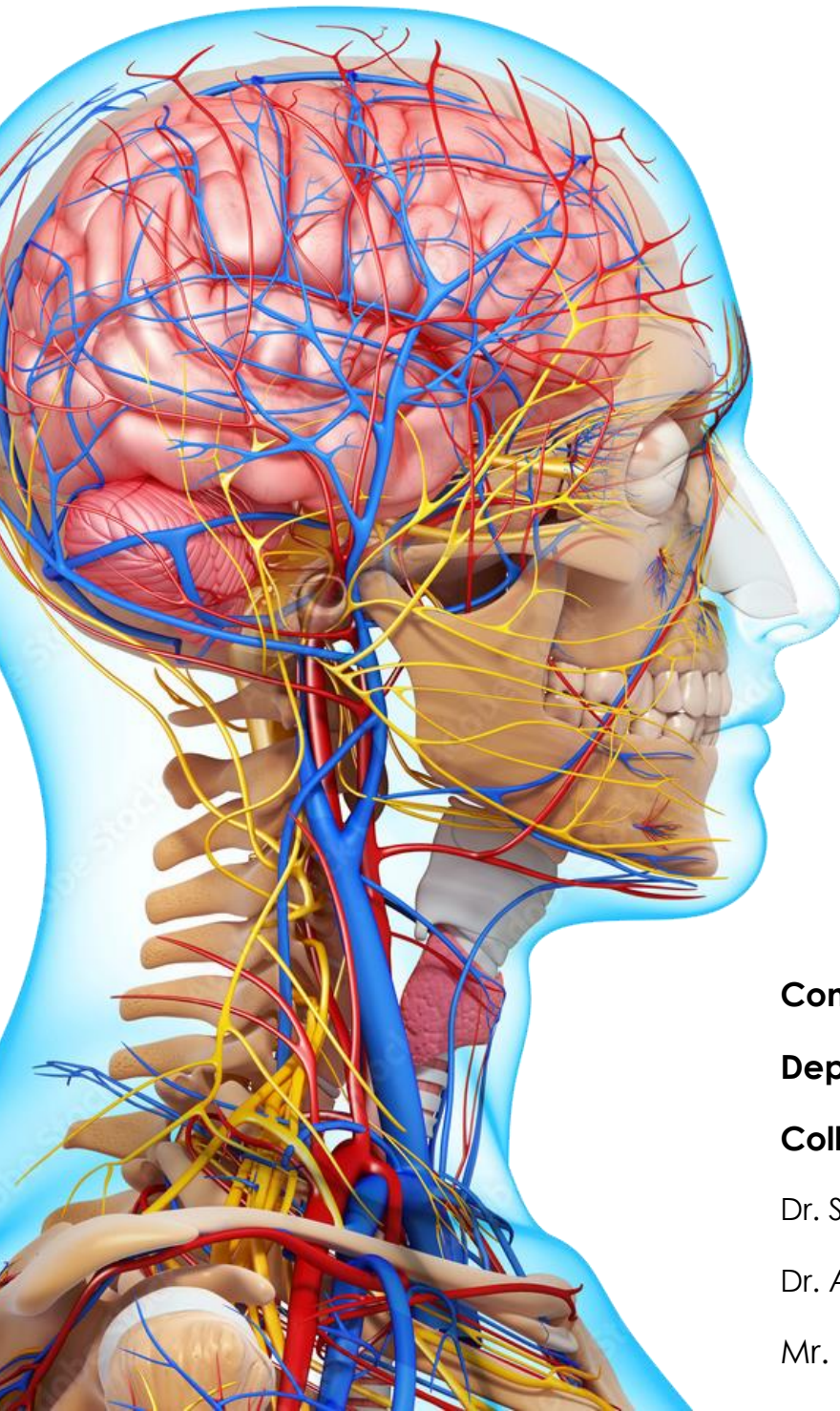


STUDY GUIDE – 2025

First Year BDS

Batch- XXVI (26)

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



Compiled by:

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College of Dentistry

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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.





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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



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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.



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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





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FIRST YEAR BDS FACULTY & ADMINISTRATION

Department	Faculty Name	Designation	Email Address
Anatomy	Prof. Dr. Saad Usmani	Head of Department	msaadusmani786@gmail.com
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	Dr. Jamzadi	Demonstrator	jamzadiqazi@gmail.com
Biochemistry	Dr. Fauzia Perveen	Head of Department	fauzrehmani@gmail.com
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	Dr. Fauzia Perveen	Deputy Controller - COD	
	Dr. Laraib Hameed	Coordinator - COD	
DHPE	Dr. Sabaa Shahid	Incharge	dhpelcmd@gmail.com
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CURRICULUM COMMITTEE – BASIC SCIENCES

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

Prof. Dr. Shahid Zafar

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



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TIME TABLE



LIAQUAT COLLEGE OF MEDICINE & DENTISTRY

TIME TABLE FOR FIRST PROFESSIONAL BDS (BATCH - 26)

PRE-FOUNDATION (WEEK-1)



TUESDAY 15-April-2025				
Commencement Day & White Coat Ceremony Auditorium (6 th Floor) 10:00 am -11:30 am				
TIME	9:00-10:00	10:00-11:00	Tea Break 11:00 AM - 11:20 AM	11:20 - 01:00
DAY	Anatomy	DHPE		
WEDNESDAY 16-April-2025	Introduction to 1 st year BDS curriculum Prof. Dr. Saad Usmani	Introduction to Study Guide Dr. Saba Shahid		College Tour Venue: Auditorium (6 th Floor)
THURSDAY 17-April-2025	Oral Biology	Biochemistry		Dental OPD's Tour Venue: Auditorium (6 th Floor)
FRIDAY 18-April-2025	Physiology	Research		Co-curricular Activity Welcome Brunch 1 st Year BDS Venue: PDC (5 th Floor)
	Medicine & Islamic Values Prof. Dr. Nusrat Zareen	Importance of Research in Health Dr. Amna Rehman		
Dr. Wajida Jawed Coordinator First Year BDS				
Lectures will be conducted in Lecture Hall no 1 (3 rd Floor)				





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ACADEMIC CALENDAR – FIRST YEAR BDS



MONTH	APRIL				MAY				JUNE					JULY				AUGUST										
WEEK	3	4	5	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4								
CUMULATIVE WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20								
DATES	15-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	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug								
MODULES	ORIENTATION WEEK	PRE-FOUNDATION	FOUNDATION			FOUNDATION MODULE EXAM	NEURO MUSCULO SKELETAL		EID UL ADHA & SUMMER VACATIONS					NEURO MUSCULO SKELETAL		BLOOD				BLOOD MODULE EXAM				CVS				
ISLAMIAT / ETHICS		Introduction to the Holy Quran/ An overview of Ethical theory			Selected Texts from the Holy Quran/ Worldview and Philosophy		Selected Texts from the Holy Quran/ Development of Worldview and Philosophy							Selected Texts from the Holy Quran/ Development of critical thinking skills		Selected Texts from the Holy Quran/ Introduction to Logic		Seerah / Religion & Morality	Seerah/ Moral Relativism									
COMMUNICATION SKILLS																												
LeaPE					Leadership theories & styles									Leader vs manager											Working effectively in teams			Professionals m. basic concepts
PATIENT SAFETY & INFECTION CONTROL																								Fire Safety Protocols				Hand Hygiene Techniques
RESEARCH		Importance of research in health	How to formulate a research question	Writing back ground and rationale of study	Writing research objectives		Writing operational definitions	How to perform literature search						Observational Analytical study designs: Cohort studies and odds ratio	Case control studies and odds ratio	Cohort Studies and relative risk	Experimental studies: Randomized control trials	Experimental Studies: Quasi-experimental	Estimating sample size					Sampling Techniques	Hypothesis, Its types and errors in hypothesis testing	Designing a Questionnaire		
PDC SKILLS																		Hand Washing										
																					REVISION WEEK / RESEARCH WEEK							

MONTH	SEPTEMBER					OCTOBER					NOVEMBER					DECEMBER					JANUARY					FEBRUARY					MARCH				
WEEK	1	2	3	4	5	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					
CUMULATIVE 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	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	2-Feb	9-Feb	16-Feb	23-Feb	2-Mar	9-Mar	16-Mar	23-Mar					
MODULES	MID TERM	SPORTS WEEK	RESPIRATORY		RESPIRATORY MODULE EXAM	GIT		GIT MODULE EXAM	CNS				CNS MODULE EXAM	SPECIAL SENSES	KIDNEY & BODY FLUIDS			ENDOCRINE		REVISION WEEK	PRE-PROF. PREPARATORY LEAVE	PRE-PROF. EXAMINATION	PROF. PREPARATORY LEAVE	PROF. EXAMINATION											
ISLAMIAT / ETHICS			Seerah/ Conflict of Interest			Introduction to Hadith & Sunnah / ethical egotism			Islamic Law & Jurisprudence / Astrology		Islamic Law & Jurisprudence / Dentology			Islam & science / Ross's Moral theory		Islamic Economic System / Virtue Ethics		Political System of Islam / Aesthetics & Ethics	Islamic History						Islamic History/ Ethics of care VS Ethics of Justice	Islamic History/ Ethics of care VS Ethics of Justice									
COMMUNICATION SKILLS																																			
LeaPE																																			
PATIENT SAFETY & INFECTION CONTROL																																			
RESEARCH																																			
PDC SKILLS											First Aid Introduction														Oral cavity Examination										



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HOLIDAY CALENDAR

Labour Day	1 st May, 2025
*Eid-ul-Azha	07, 08 & 09 June 2025
*Ashura	05 & 06 July, 2025
*Chehlum	15 th August, 2025
Independence Day	14 th August, 2025
*Eid Milad un Nabi	5 th September, 2025
Allama Iqbal Day	9 th November, 2025
Quaid-e-Azam Day	25 th December, 2025
<p>*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.</p>	



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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.	14 th 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	



INTEGRATED MODULAR DENTAL CURRICULUM



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MODULE NAMES	
1.	Foundation
2.	Neuromusculoskeletal
3.	Blood
4.	Cardiovascular System (CVS)
5.	Respiratory
6.	Gastrointestinal Tract (GIT)
7.	Central - Nervous System (CNS)
8.	Special Senses
9.	Kidney & Body Fluids
10.	Endocrinology



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CODES			
Subject Name		Abbreviations	Color Codes
ANATOMY	Anatomy Lectures	A	
	General Anatomy	A(Gn)	Navy Blue
	Gross anatomy	A(Gr)	Black
	Histology	A(H)	Light Pink
	Neuro - Anatomy	A(NA)	Red
	Embryology	A(E)	Brown
	Histology Practical	A(P)	Light Pink
PHYSIOLOGY	Lecture	P	Green
	Practical	P(P)	
BIOCHEMISTRY	Lectures	B	Light Blue
	Practical	B(P)	
ORAL BIOLOGY	Oral Biology	O	Purple
	Tooth Morphology	T	Dark Pink



LEARNING OUTCOMES



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HUMAN ANATOMY

At the end of the course students will be able to...

Knowledge:	Describe basic structural and functional features of the major organ systems within the human body. Correlate specific structural features of human cells, tissues, organs and systems of the human body with their normal functions, and identify the changes that occur during human development, ageing and disease.
Skills:	Develop and display the motivation necessary for ongoing independent learning. Perform various practical sessions under the supervision.
Attitude:	Display collaboration with other students in classroom/tutorials session or activities.

PHYSIOLOGY

At the end of the course students will be able to...

Knowledge:	<ol style="list-style-type: none">1. enhanced knowledge and appreciation of mammalian physiology;2. Describe the functions of important physiological systems including the cardio-respiratory, renal, reproductive and metabolic systems;3. Explain how these separate systems interact to yield integrated physiological responses to challenges such as exercise, fasting and ascent to high altitude, and how they can sometimes fail; Recognize and identify principal tissue structures.
Skills:	Perform, analyze and report on experiments and observations in physiology; <u>Student Learning Outcomes</u>
Attitude:	Observe safe practices in the laboratory, follow proper procedures and regulations for safe use and disposal and respond to emergencies in the laboratory. Work collaboratively with members of a team in classroom and/or laboratory activities.



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ORAL BIOLOGY	
At the end of the course students will be able to...	
Knowledge:	<ul style="list-style-type: none">• Define the different parts of the oral cavity• Describe macro and micro anatomy of the teeth• Select the appropriate tooth identification system needed in any dental practice• Define the anatomical landmarks of the crowns of teeth• Draw and describe the morphological feature of different type of teeth and their pulp cavities• Identify both deciduous and permanent teeth and memorize the chronology• Describe the anatomical changes induced in the mandible by age• State the significance of physiologic tooth form in protecting the periodontium.• Describe the different curves to which the arrangement of teeth confirms• Describe the relation of maxillary and mandibular teeth in normal centric occlusion, as well as during different mandibular movements
Intellectual Skills:	<ul style="list-style-type: none">• Differentiate between the deciduous and permanent human teeth• Predict the approximate age of a human being according to the condition of his or her teeth• Distinguish any abnormalities in human teeth as well as in their occluding relationship
Professional & Practical Skills:	<ul style="list-style-type: none">• Draw the morphology of different types of human teeth• Create the normal shape and size of different permanent human teeth by carving



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BIOCHEMISTRY	
At the end of the course students will be able to...	
Knowledge:	Demonstrate an understanding of fundamental biochemistry principles, including topics specific to chemistry and biochemistry.
Skills:	<p><u>Problem Solving Skills:</u> Design, carry out, and record the results of chemical and biochemical experiments using classical techniques, modern instruments, and/or computers, then analyze those results to draw reasonable, accurate conclusions.</p> <p><u>Chemical Literature Skills:</u> Employ modern library search tools to locate and retrieve scientific information about a technique, or topic relating to biochemistry.</p> <p><u>Laboratory Safety Skills:</u> Observe safe practices in the laboratory, follow proper procedures and regulations for safe use and disposal of chemicals, and respond to emergencies in the laboratory.</p> <p><u>Communication Skills:</u> Communicate biochemical concepts and experimental results through effective written and oral communication.</p>
Attitude:	Work collaboratively with members of a team in classroom and/or laboratory activities



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ISLAMIC STUDIES				
Topic	Objectives	Mode of Teaching	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
		Lecture/ Tutorials		
INTRODUCTION TO THE HOLY QURAN				
Introduction To The Holy Quran	<ul style="list-style-type: none">Discuss the importance of the Quran in our daily lives	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none">Describe briefly the history of revelation of the Quran (Prediction of Warqa bin Naufal, 1st Revelation etc).	Lecture		
	<ul style="list-style-type: none">Explain how the Quran is the greatest miracle of Rasool-ullah (S.A.W).			
	<ul style="list-style-type: none">Explain how the Quran was compiled in different ways in the era of:<ul style="list-style-type: none">Rasool-ullah (S.A.W)Abu Bakar (R.A.)Usman Ghani (R.A.)			
	<ul style="list-style-type: none">Discuss the Quranic Sciences (Uloom ul Quran):<ul style="list-style-type: none">Definition and differences between Makkan and Madinah verses or chapters.Explain the Shan e Nuzool / reasons for the revelation (Two examples)			
	<ul style="list-style-type: none">Differentiate between the Abrogator & Abrogated verses (Nasikh & Mansookh) (Two examples)			
SELECTED TEXTS FROM THE HOLY QURAN				
Excerpts from: Surah Al Baqarah: 284-286	<ul style="list-style-type: none">Discuss the different aspects of Eman	Lecture	Knowledge	MCQs
Excerpts from: Surah Al Hujurat, 1- 18	<ul style="list-style-type: none">Explain the reason for the revelation of these Ayat.	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none">Explain the high status of Rasool-ullah (S.A.W).			
	<ul style="list-style-type: none">Justify the importance of verification of news.			
	<ul style="list-style-type: none">Explain the importance of Reconciliation.			
	<ul style="list-style-type: none">Explain the importance of brotherhood and unity of the Muslim Ummah.			
	<ul style="list-style-type: none">List the Moral values of a Muslim.			
	<ul style="list-style-type: none">Justify why discrimination and intolerance is condemned in Islam.			
	<ul style="list-style-type: none">Differentiate between Islam and Eman.			
	<ul style="list-style-type: none">Explain the harm of Hypocrisy and show off			



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	<ul style="list-style-type: none"> Explain the ability to do well is given by Allah S.W.T 			
Excerpts from: Surah Al-Mumanoon : 1-11	<ul style="list-style-type: none"> Explain the Concept of success. 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Emphasize the importance of humanity. 			
	<ul style="list-style-type: none"> Justify the importance of abstinence from useless activities. 			
	<ul style="list-style-type: none"> Emphasize the importance of paying zakat. 			
	<ul style="list-style-type: none"> Describe the moral and character values of believers. 			
	<ul style="list-style-type: none"> Emphasize the importance of trust and pledges. 			
	<ul style="list-style-type: none"> Recognize the importance of prayers. 			
	<ul style="list-style-type: none"> Describe the characteristics of the inheritors of Paradise 			
Excerpts from: Surah Al-Furqan : 63-77	<ul style="list-style-type: none"> Describe the characteristic of Ibad ur Rahman 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Recognize the importance of supplication 			
	<ul style="list-style-type: none"> Explain why Shirk is the biggest sin 			
	<ul style="list-style-type: none"> Explain the meaning of spiritual; blindness. 			
	<ul style="list-style-type: none"> Recognize the importance of belief in resurrection. 			
	<ul style="list-style-type: none"> Compare permanent life in paradise with that of Hell. 			
	<ul style="list-style-type: none"> Describe reasons why the disbelievers will stay in Hell permanently 			
Excerpts from: Surah Al-Anam : 152- 154	<ul style="list-style-type: none"> Describe the importance of caring for orphans. 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Explain the importance of honesty in weights & measure. 			
	<ul style="list-style-type: none"> Discuss the importance of justice. 			
	<ul style="list-style-type: none"> Justify that Shariah is the only right path in life 			
Surah Al-Fateha: 1 - 7	<ul style="list-style-type: none"> Explain the significance of Suratul-Fateha. 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> List the other names of Suratul-Fateha. 			
	<ul style="list-style-type: none"> Explain that Allah s.w.t answers Suratul-Fateha. 			
	<ul style="list-style-type: none"> Justify the importance of reciting Suratul-Fateha in every rakah of salah. 			
	<ul style="list-style-type: none"> Explain the benefit of saying Ameen after suratul-Fateha. 			
	<ul style="list-style-type: none"> Explain the 3 different paths in life 			
Surah Al-Kahf – Part 1 : 1-12	<ul style="list-style-type: none"> Explain the cause of revelation . 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Discuss the significance of Suratul-Kahf . 			
	<ul style="list-style-type: none"> Describe the story of the people of the cave who preferred Deen to Dunya 			



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Surah Al-Kahf - Part 2: 13-22	• Discuss the story of the people of the cave in detail.	Lecture	Knowledge	MCQs
	• Summarize the moral of the story.			
	• Provide reasons why the elite youth got disillusioned by paganism.			
	• Explain that Allah forbids arguments about useless issue			
Surah Al-Kahf- part 3: 60-82	• Discuss from Surat-ul-Kahf the Story of Musa A.S. and Khizr A.S.	Lecture	Knowledge	MCQs
	• Discuss the etiquette of gaining knowledge.			
	• Explain the lessons learnt from the story of Musa A.S. and Khizr A.S			
Surah Al-Falaq:1-5 & An-Naas: 1-6	• Define the term Al-Mu'awwidhatayn.	Lecture	Knowledge	MCQs
	• Describe the background of revelation of these Surahs.			
	• Explain the importance of these Surahs			
	• Describe how Surah al Falaq and Surat al-Naas share a common theme			
SEERAH				
Seerah	• Describe the early life of Rasool-ullah (S.A.W) before prophet hood	Lecture	Knowledge	MCQs
	• Describe the life of Rasool-ullah (S.A.W) in the early stage of prophet hood	Lecture		
	• Describe the life of Rasool-ullah (S.A.W) in Makkah before the Hijrah	Lecture		
	• Describe the journey of Hijrah and the early Madinan period	Lecture		
	• Explain the Charter of Madinah.	Lecture		
	• Describe the Change of Qiblah and the Ghazwaat			
	• Describe the Treaty of Hudaibiyah and its significance	Lecture		
	• Describe the conquest of Makkah and its significance.	Lecture		
	• Explain the sermon of Hajja-tul-Wida.			
	• Describe the lessons derived from the Madinah period			
INTRODUCTION TO HADITH & SUNNAH				
Introduction To Hadith & Sunnah	• Recognize the importance of Hadith as being the 2nd basic source of Shariah.	Lecture	Knowledge	MCQs
	• Explain the history of the compilation of hadith in the different eras.			
	• Classify different kinds of hadith			
	• Justify the significance and legal position of Hadith (Hujjiyat e Hadith).	Lecture		
	• Discuss Uloom ul Hadith.			
	• Differentiate between Hadith & Sunnah			



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SELECTED TEXTS FROM HADITH				
Husn-e-Akhlaq & Gentleness(Rifq)	<ul style="list-style-type: none"> Recognize the importance and benefits of Husn e Akhlaq in the light of the Quran and Hadith. Illustrate with examples from the life of Rasool-ullah s.a.w. as our role model. Provide examples from everyday life to highlight the significance of Husn e Akhlaq. Discuss the importance of self-assessment and conscious effort for improving our conduct 	Lecture	Knowledge	MCQs
Patience (Sabr), Gratitude (Shukr)				
Modesty (Haya), Smiling				
Speech (Kalam), Truthfulness				
Forgiveness (Darguzar), Reconciliation (Sulah)		Lecture	Knowledge	MCQs
Well Wishing (Khair khwahi), Mercy (Rehem)				
Jealousy, Injustice (Zulm)				
Salaam, Contentment (Qanaat)		Lecture	Knowledge	MCQs
Giving Gifts, Love of Allah				
Arrogance, Anger Management				
Greed, Miserliness		Lecture	Knowledge	MCQs
Etiquette of Gatherings, Social Interactions				
Respect for Elders (Adab), Affection towards Children's				
Maintaining ties of Relationship (Sila Rehme) & Duty to Parents		Lecture	Knowledge	MCQs
Trustworthiness (Amanat), Sense of Responsibility				
ISLAMIC LAW & JURISPRUDENCE				
Significance of Islamic Jurisprudence	Define Islamic Jurisprudence.	Lecture	Knowledge	MCQs
	Explain the significance of Islamic Jurisprudence in Quran & Hadith.			
	Discuss the importance of Ijtihad.			



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	<ul style="list-style-type: none">Name the famous Mujtahideen			
Sources of Islamic Jurisprudence	<ul style="list-style-type: none">Discuss the primary sources of Islamic Jurisprudence.	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none">Explain the importance of Jurisprudence in Modern Era.			
	<ul style="list-style-type: none">Define Fatwa and its significance in daily life.			
	<ul style="list-style-type: none">Name the famous books of Jurisprudence			
ISLAMIC CULTURE				
Islamic Culture	<ul style="list-style-type: none">Explain the role of civilization in the development of human personality and communities.	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none">Discuss the distinct features of various Islamic civilizations.			
	<ul style="list-style-type: none">Discuss the contemporary issues in Islamic societies			
ISLAM & SCIENCE				
Islam & Science	<ul style="list-style-type: none">Explain the close relationship between Islam & Science.	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none">List the contributions of Muslim scientists in the development of science			
	<ul style="list-style-type: none">Identify how the Quran explains Scientific facts	Lecture	Knowledge	MCQs
ISLAMIC ECONOMIC SYSTEM				
Islamic Economic System	<ul style="list-style-type: none">Describe the significance of the Islamic Economic system.	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none">List the basic Principles of the Islamic Economic System.			
	<ul style="list-style-type: none">Explain how Islam ensures Social Justice.			
	<ul style="list-style-type: none">Justify the importance of Zakat.			
	<ul style="list-style-type: none">Explain why Interest (Riba / Sood) is prohibited.			
	<ul style="list-style-type: none">Explain the significance of Earning Money through Legitimate / Lawful Sources (Halal).			
	<ul style="list-style-type: none">Distinguish clearly between Halal & Haram.			
	<ul style="list-style-type: none">Explain the Forbidden Means of Livelihood			
POLITICAL SYSTEM OF ISLAM				
Political System Of Islam	<ul style="list-style-type: none">Explain the basic concepts of the Islamic political system.	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none">Discuss the Islamic concept of sovereignty.			
	<ul style="list-style-type: none">Explain the functions of the basic institutions of an Islamic Government			
ISLAMIC HISTORY				
Abu Bakr (R.A)	<ul style="list-style-type: none">Describe the life of Abu Bakr (RA).	Lecture	Knowledge	MCQs



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	<ul style="list-style-type: none"> Explain how he is a role model in upholding the unity of the Muslim Ummah 			
Umar Bin Khattab (R.A)	<ul style="list-style-type: none"> Explain the contribution of Umar R.A. in laying the foundation of Islamic, political and civil administration. 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> List the Military expansion under Umar R.A. 			
	<ul style="list-style-type: none"> Discuss his reforms and laying the foundation of the Welfare state. 			
	<ul style="list-style-type: none"> Discuss the incomparable justice and taqwa of Umar R.A 			
Usman Bin Affan (R.A)	<ul style="list-style-type: none"> Discuss his life & legacy of the Compilation of the Quran. 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Explain his Economic and social administration. 			
	<ul style="list-style-type: none"> List his Military expansions. 			
	<ul style="list-style-type: none"> Explain the prophecy in the Quran about the tragic martyrdom of Hazrat Usman (R.A) 			
Ali Bin Abi Talib (R.A.)	<ul style="list-style-type: none"> Discuss his life and legacy. 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Explain the reasons for the battles fought during his era: <ul style="list-style-type: none"> Battle of Jaml (Camel). Battle of Siffin 			
	<ul style="list-style-type: none"> Describe the final years of his caliphate. 			
	<ul style="list-style-type: none"> Explain the reasons of assassination of Ali R.A. and its consequences 			
Describe The Period Of The Umayyads With Regard To:	<ul style="list-style-type: none"> Their background & origin. 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Important Events. 			
	<ul style="list-style-type: none"> Conquest of Spain by Tariq Bin Ziyad & Musa Bin Nusair. 			
	<ul style="list-style-type: none"> Conquest of Sindh by Muhammad Bin Qasim. 			
	<ul style="list-style-type: none"> Umar Bin Abdul Aziz. 			
	<ul style="list-style-type: none"> Milestones in the era of Umayyads 			
Describe The Period Of The Abbasids With Regard To:	<ul style="list-style-type: none"> Their background & origin. 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Huge Development in the Sciences of: <ul style="list-style-type: none"> Hadith Fiqh Other Islamic Sciences in the Abbasid era 			
	<ul style="list-style-type: none"> Milestones in the era of the Abbasids 			



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INTRODUCTION TO ETHICS				
Topic	Objectives	Mode of Teaching Lecture/ Tutorials	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
An Overview of Ethical Theory	<ul style="list-style-type: none"> Differentiate among ethics, philosophy and morality 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Define the following with examples: <ul style="list-style-type: none"> Utilitarianism Deontology Social Contract Theory Virtue Theory Feminist Ethics 			
Worldview and Philosophy	<ul style="list-style-type: none"> Briefly describe the four categories of philosophy with examples i.e. epistemology, logic, metaphysics, ethics, and aesthetics 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Briefly describe the sub-categories of world view with examples i.e. naturalism, pantheism, theism, spiritualism and polytheism, and postmodernism 			
Development of Critical Thinking Skills	<ul style="list-style-type: none"> Define critical thinking 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Briefly describe the history of critical thinking 			
	<ul style="list-style-type: none"> List the advantages of critical thinking 			
	<ul style="list-style-type: none"> Discuss how critical thinking can be developed in one-self 			
Introduction to Logic	<ul style="list-style-type: none"> Compare logic and reasoning 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Differentiate between deductive and inductive logic 			
	<ul style="list-style-type: none"> Differentiate between statements and propositions 			
	<ul style="list-style-type: none"> Discuss the fundamental principles of logic 			
Introduction to Philosophy and Assessing Arguments	<ul style="list-style-type: none"> Discuss the elements of arguments 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Describe how philosophical views affect argumentation 			
Religion and Morality	<ul style="list-style-type: none"> Compare the Concerns, Pre-Occupations and Constituent Elements of Religion and Morality 	Lecture	Knowledge	MCQs
Moral Relativism	<ul style="list-style-type: none"> Define moral relativism 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Describe the various aspects of moral relativism 			
Conflict of interest	<ul style="list-style-type: none"> Define conflict of interest 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Explain the various forms of conflict of interest 			
Ethical Egoism	<ul style="list-style-type: none"> Describe the main characteristics of ethical egoism 	Lecture	Knowledge	MCQs



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Utilitarianism	<ul style="list-style-type: none"> Describe the main characteristics of Utilitarianism 	Lecture	Knowledge	MCQs
Axiology	<ul style="list-style-type: none"> Differentiate between axiology and ethics 	Lecture	Knowledge	MCQs
Deontology	<ul style="list-style-type: none"> Describe the characteristics of Deontology and its role in ethics 	Lecture	Knowledge	MCQs
Ross's Moral Theory	<ul style="list-style-type: none"> Define the various prima facie obligations according to Ross' theory 	Lecture	Knowledge	MCQs
Virtue Ethics	<ul style="list-style-type: none"> Define virtue ethics 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Differentiate virtue ethics from utilitarianism and deontologism 			
Applied Ethics	<ul style="list-style-type: none"> Differentiate among normative ethics, met ethics and applied ethics 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Provide examples of applied ethics 			
Aesthetics and Ethics	<ul style="list-style-type: none"> Define aesthetics and its history 	Lecture	Knowledge	MCQs
	<ul style="list-style-type: none"> Differentiate between aesthetics and ethics with examples 			
Ethics of Care vs. Ethics of Justice	<ul style="list-style-type: none"> Discuss the differentiating characteristics between ethics of care and of justice 	Lecture	Knowledge	MCQs



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CONTENT FOUNDATION MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	General Anatomy	06	04 Weeks	Lecture / Tutorial
	Embryology	08		Lecture
	Histology	08		Lecture / Practical
	Practical	06		Practical
PHYSIOLOGY	Lecture	10		Lecture / Tutorial
	Practical	01		Practical
BIOCHEMISTRY	Lectures	12		Lecture / Tutorial
	Practical	06		Practical
ORAL BIOLOGY	Oral Biology	08		Lecture
	Tooth Morphology	02		Lecture
Total		67		



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Topic	Lecture	Foundation - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/Skill/Attitude	Assessment Tools
INTRODUCTION					
Introduction	FM-A1 (Gn1)	<ul style="list-style-type: none"> Define anatomy and its branches. Discuss their practical implication. 	Lecture	K	MCQ
	P1	Introduction to foundation module	Lecture	Knowledge	MCQ
		Describe the basic life process and survival need of the body		Knowledge	MCQ
		Describe the importance of Physiology in modern Dentistry		Knowledge	MCQ
	B1	Explain the importance of Biochemistry in Dentistry	Lecture	Knowledge	MCQ
	B(P)1	List the significance of Laboratory Hazards and warning signs	Practical/Tutorial	Knowledge Skill	MCQ / OSPE
	O1	List the tissues and supporting structures of tooth	Lecture/Tutorial		
	O2	Identify the structure of tooth on simulation/picture			MCQ
	O3	Describe the composition of tissues and supporting structures of tooth		Knowledge	MCQ
		Locate the tissues of tooth and supporting structures on simulations		Skills	
		Distinguish among different tissues of the oral cavity		Knowledge	MCQ
	T1	Discuss all three dentitions (primary, mixed and permanent) according to their chronological era (order)	Lecture/Tutorial	Knowledge	MCQ
		Discuss dental formulae for permanent and primary dentitions		Knowledge	
	T2	Discuss different numbering systems for teeth.		Knowledge	Google Classroom
		Correlate numbering systems based on identification of individual teeth.		Knowledge , Skills	Tooth Models



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Terms of Planes, Positions And Movements	FM-A2-3(Gn2-3)	Define various planes, positions and terms of movement in relation to trunk, head & neck in particular. Relate the movements with planes	Lecture/ Tutorial/SG D	KSA	MCQ / OSPE
Homeostasis & Feedback control mechanism	P2 + 3	Explain body fluid compartments, ECF composition (internal environment) & homeostasis with examples.	Lecture/ Tutorial	Knowledge	MCQ / Assignment
		Describe the control systems of the body. (Positive and negative feedback)		Knowledge	MCQ Assignment
Introduction To Embryology	FM-A4 (E1)	Define: Embryonic & Fetal period, Trimesters, Terms of position related to fetus and induction factors.	Lecture	K	MCQ
Introduction To Limbs	FM-A5(Gn4)	Identify the general arrangement of bones & muscles in the limb	Lecture	K	MCQ
Cell Membrane & Organelles	FM-A6-7(H1-2)	Discuss histological aspects of cell components. Relate cell junctions with their location & function. Describe phases of cell cycle & steps of mitosis.	Lecture	K	MCQ / OSPE
	FM-A(P1)	Identify different component in various cells, visualized under light microscope.	Practical	KSA	MCQ / OSPE
	B2	Describe the biomedical importance of micro and macro molecules found in cell Organelles.	Lecture/ Tutorial	Knowledge	Quiz Assign
		Explain the biochemical structure and functions of cell membrane		Knowledge	Quiz Assign
	P4	Discuss the structure function and importance of cell membrane	Lecture/ Tutorial	Knowledge	MCQ / OSPE / Google Assignment



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	P 5+6	Describe functions of different cell organelles		Knowledge	MCQ / OSPE/ Google Assignment
Cell division	FM-A8(E2)	List the types of cell division. Discuss steps of Meiosis	Lecture	K	MCQ / OSPE
Microscope	FM-A(P2)	<ul style="list-style-type: none"> Identify different parts of microscope along with their function. Demonstrate operational steps of microscope handling. 	Practical	KSA	MCQ / OSPE
Cytoskeleton	O4	Define cytoskeleton	Lecture/ Tutorial	Knowledge	MCQ
		Enumerate its structural element		Knowledge	MCQ
	O5	Classify intercellular junction on the basis of structural and functional histology		Knowledge	MCQ
	O6	Define fibroblast, cellular organization		Knowledge	MCQ
	O7	Explain the epithelium-connective tissue interface		Knowledge	MCQ
	O8	Discuss excretory products of fibroblast and collagen synthesis		Knowledge	MCQ
		Describe extracellular matrix degradation		Knowledge	MCQ
Osmosis	P7+8	Discuss cytoskeleton Discuss different types of membrane transport with examples	Lecture/ Tutorial	Knowledge	MCQ
		Define osmosis and osmotic pressure		Knowledge	MCQ
		Define the term tonicity		Knowledge	MCQ
		Distinguish between isotonic, hypotonic and hypertonic solution		Knowledge , Skills	MCQ / OSPE
Epithelium	FM-A9-10(H3-4)	<ul style="list-style-type: none"> Describe general features of epithelium. Classify epithelium with examples. Describe the specialization of each domain (surface modifications). 	Lecture	K	MCQ
	FM-A(P3)	Differentiate different types of epithelia according to their characteristic identification	Practical	KSA	MCQ / OSPE
Exocrine gland	FM-A11-12(H5-6) -	Classify exocrine glands according to morphology; type & mode of secretion.	Lecture	K	MCQ



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	FM-A(P4)	To study the different types of exocrine glands	Practical	KSA	MCQ / OSPE
Transport across and through cell membrane	P9+10	Define and give types of active transport with examples	Lecture	Knowledge	MCQ/ Quiz Assignment
		Describe the following processes: - Bulk transport - Phagocytosis - Pinocytosis		Knowledge	MCQ/ Quiz Assignment
	P(P)1	Interpret the effects of isotonic, hypotonic and hypertonic solutions (osmotic fragility)		Knowledge , Skills & Attitude	OSPE
REPRODUCTIVE SYSTEM EMBRYOLOGY	FM-A13-14(E3-4)	<ul style="list-style-type: none"> Identify the parts of male & female reproductive system. Discuss their contribution in gamete formation and transportation. Relate meiosis with gamete formation. 	Lecture	K	MCQ
Connective tissue	FM-A15-16(H7-8)	<ul style="list-style-type: none"> Relate the general features of connective tissue with the functions. Describe the characteristic features, location and functions of its components (cell, matrix). Classify connective tissue with examples. Differentiate types of adipose tissue. 	Lecture	K	MCQ
	FM-A(P5)	Identify different varieties of connective tissue proper at different sites.	Practical	KSA	MCQ / OSPE
Fertilization	FM-A17(E5)	<ul style="list-style-type: none"> Describe the phases of fertilization. Enumerate the results of fertilization. Describe Stages of fertilization on a given model, photograph or specimen. Relate uterine changes in response to fertilization. 	Lecture/ Tutorial	K	MCQ
Cleavage & Implantation	FM-A18(E6)	<ul style="list-style-type: none"> Explain cleavage and blastocyst formation. Name the normal and abnormal sites of implantation of blastocyst 	Lecture	K	MCQ



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Skin	FM-A19-20(Gn5-6)	<ul style="list-style-type: none"> • Define epidermal & dermal components. • Differentiate tension, flexure & papillary ridges. • Define superficial & deep fascia with examples. • Differentiate thick & thin skin. • Relate the function of each type of cell in epidermis. • List the dermal appendages. • Describe the glands of skin. 	Lecture	K	MCQ / OSPE
	FM-A(P6)	<ul style="list-style-type: none"> • Identify the layers of epidermis and the dermal appendages. 	Practical	KSA	MCQ / OSPE
2nd week of development	FM-A21(E7)	<ul style="list-style-type: none"> • Describe the formation of structures during 2nd week. 	Lecture	K	MCQ / OSPE
3rd week of development (I)	FM-A22(E8)	<ul style="list-style-type: none"> • Describe gastrulation and Neurulation. • Discuss the differentiation of mesoderm and somite formation. • List derivatives of germ layers. 	Lecture	K	MCQ / OSPE





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Topic	Lecture	Foundation - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
CARBOHYDRATES , LIPIDS & PROTEIN					
Chemistry of Carbohydrates	B3	Describe the biomedical importance of carbohydrates	Lecture/ Tutorial	Knowledge	MCQ
		Explain the structure of carbohydrates with regards to the following: i. Isomers and epimers (D and L sugars) ii. Enantiomers iii. Cyclization of monosaccharide		Knowledge	Quiz Google Classroom Assignment /OSPE
	B(P)2	Detect of carbohydrates according to the general Scheme	Practical	Skills	Quiz /OSPE
	B(P)3	Detect sucrose & starch in the given sample?		Skills	Quiz /OSPE Assignment
	B(P)4	Detect glucose in the given sample?		Skills	OSPE / MCQ
	B4	Classify of carbohydrates according to the following criteria i. Monosaccharide (aldoses and ketoses) ii. Disaccharides (reducing and non reducing sugars) iii. Polysaccharides (homopolysaccharides and heteropolysaccharides) iv. Glycosides	Lecture/ Tutorial	Knowledge	Quiz Assignment Assessment Google Classroom
	B5	Describe the following reactions of carbohydrates: i. Oxidation and reduction reactions ii. Esterification		Knowledge	Quiz Assignment Assessment Google Classroom
Chemistry of Lipids	B6	Define lipids.	Lecture/ Tutorial	Knowledge	
		Classify lipids according to Bloor's classification		Knowledge	
		Describe the nomenclature of fatty acids: i. Saturated and unsaturated fatty acids ii. Essential and non-essential fatty acids		Knowledge	Quiz Assignment Assessment Google Classroom
		Describe the physical and chemical properties of lipids. which properties		Knowledge	Quiz Assignment
		Explain the physical and chemical properties fatty acids.		Knowledge	Quiz Assignment



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	B(P)5	Discuss the qualitative detection of lipids, cholesterol & bile salt	Practical	Skills	OSPE /MCQ
	B7	List compound lipids with its functions (Phospholipids) Explain the biomedical importance of lipids.	Lecture/ Tutorial	Knowledge	Quiz Assignment Assessment Google Classroom
Chemistry of Protein	B8	Describe the importance of amino acids and proteins.	Lecture/ Tutorial	Knowledge	Quiz Assignment Assessment Google Classroom
		Explain the structure of amino acids with different types of side chain (non-polar, polar, acidic, basic, aromatic, aliphatic)		Knowledge	Quiz Assignment
	B9	Classify amino acids on the basis of structure, functions & nutritive value	Lecture/ Tutorial	Knowledge	Quiz Assignment
		Describe the following classes of amino acids with examples. i. Glucogenic and ketogenic amino acids. ii. Non-protein amino acids. iii. Essential and non-essential amino acids.		Knowledge	Quiz Assignment Assessment
		Describe the physical and chemical properties of amino acids.		Knowledge	Quiz Assignment
	B10	Describe the primary, secondary, tertiary and quaternary structures of proteins.	Lecture/ Tutorial	Knowledge	Quiz Assignment
		Classify the proteins on the basis of structure & functions		Knowledge	Quiz Assignment
	B11	Describe the structure and functions of hemoglobin and myoglobin.		Knowledge	Quiz Assignment
		Explain the hemoglobin-oxygen dissociation curve		Knowledge	MCQ/Assignment
	B12	Define plasma protein,	Lecture/ Tutorial	Knowledge	Quiz / Assignment
		Classify plasma protein on the basis of their functions		Knowledge	Quiz / Assignment
		Discuss biomedical importance of plasma protein		Knowledge	Quiz / Assignment
	B(P)6	Detect proteins & amino acids in the given sample	Practical	Knowledge	Quiz / Assessment



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CONTENT				
NEURO MUSCULO SKELETAL MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	General Anatomy	06	04 Weeks	Lecture/ Tutorial
	Gross Anatomy	23		Lecture/ Tutorial
	Embryology	10		Lecture/ Tutorial
	Practical	03		Practical
PHYSIOLOGY	Lecture	10		Lecture/ Tutorial
	Practical	05		Practical
BIOCHEMISTRY	Lectures	06		Lecture/ Tutorial
	Practical	02		Practical
ORAL BIOLOGY	Oral Biology	12		Lecture
	Tooth Morphology	02		Lecture
Total		79		



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Topic	Lecture	Neuro Musculo Skeletal Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Introduction To Head And Neck Structures	NMS-A1(Gr1)	<ul style="list-style-type: none"> Describe the topography of head and neck region. 	Lecture/Tutorial/SGD	Knowledge, Skills & Attitude	MCQ / OSPE
Osteology of Skull	NMS-A2-3(Gr2-3)	<ul style="list-style-type: none"> Identify the bones & anatomical features of 5 Normas. Relate the foramina with their respective contents. 	Flipped classroom / Tutorial	Knowledge, Skills & Attitude	MCQ / OSPE
Bone	NMS-A4-5(Gn1-2)	<ul style="list-style-type: none"> Classify bone on the basis of shapes, development, structure & region) with examples Compare parts of adult & young long bone Summarize steps of bone development & ossification. Discuss the types of cells & constituents of matrix (organic & inorganic). Differentiate: Periosteum & endosteum; woven & lamellar bone; spongy & compact bone, with their localization in different bones. 	Lecture/Tutorial/SGD	Knowledge, Skills & Attitude	MCQ / OSPE
	NMS-A(P1)	<ul style="list-style-type: none"> Differentiate the light microscopic features of compact and spongy bone. 	Practical	Knowledge	MCQ/OSPE
	O1	Explain microscopic structure of bone	Lecture/Tutorial	Knowledge	MCQ / OSPE
	O2	Differentiate amongst different bone cells (Osteoblast, Osteoclast & Osteocytes)		Knowledge	MCQ / OSPE
	O3	Describe structural, functional histology of osteoblast		Knowledge	MCQ / OSPE
	O4	Describe structural, functional histology of Osteoclast		Knowledge	MCQ
	O5	Explain bone remodeling process			
Cartilage	NMS-A6(Gn3)	<ul style="list-style-type: none"> Define cartilage Classify on the basis of location, morphology and function. Describe the components and coverings (perichondrium) . Differentiate the 3 types histologically. 	Lecture	K	MCQ / OSPE



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	NMS-A(P2)	<ul style="list-style-type: none"> Identify the 3 types of cartilage on the basis of their characteristic features. 	Practical	KSA	MCQ / OSPE
Joint	NMS-A7(Gn4)	<ul style="list-style-type: none"> Define joint Classify joint with examples on structural, regional & functional basis. Outline features of synovial joints. 	Lecture	Knowledge	MCQ
Electrical properties of neuron	P1	Discuss the distribution of ions across the plasma membrane	Lecture/ Tutorial	Knowledge	MCQ
		Describe the structure of neuron, electrical properties of neurons and generation of RMP		Knowledge	MCQ / OSPE
Resting Potential	P2	Discuss how the resting potential is created & maintained across the membrane	Lecture	Knowledge	MCQ
		Discuss the importance of resting membrane potential (nerve potential & equation)		Knowledge	MCQ
Action Potential & propagation	P3	Explain the ionic basis of Action potential generation, propagation & graded potential	Lecture	Knowledge	MCQ
		Discuss the action potential phases with graphic representation (and its ionic basis)		Knowledge	MCQ
		Discuss the properties of action potential (all or none principle & refractory period)		Knowledge	MCQ
		Discuss the propagation of action potential in both myelinated & non-myelinated nerve fibers		Knowledge	MCQ
Neuromuscular Junction	P4	Discuss the physiology of impulse transmission at neuromuscular Junction (NMJ) with related disorders	Lecture/ Tutorial	Knowledge	MCQ / OSPE
Muscles/ Skeletal muscle	P5	Describe the organizational level of skeletal muscle	Lecture	Knowledge	MCQ
		Classify muscles on the basis of function, along with the types of skeletal muscle fibers.		Knowledge	MCQ
	NMS-A8(Gn5)	<ul style="list-style-type: none"> Differentiate the 3 types of muscle. Define: origin & insertion; fast & slow fiber and connective tissue coverings Classify skeletal muscle on the basis of architecture with examples (from H&N preferably) 	Lecture	Knowledge	MCQ / OSPE
	NMS-	• Briefly describe the structural &	Practical	KSA	MCQ /



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	A(P3)	ultra-structural (T tubules, ER, myofibril, myofilaments) organization of 3 types of muscle. • Differentiate the 3 types of muscle histologically • Differentiate the three basic muscle types according to their histological features			OSPE
	P6	Describe the molecular (I-band & A-band) structure of skeletal muscle	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	P7	Discuss the properties of skeletal muscles	Lecture	Knowledge	OSPE
	P(P)1	Explain the working of power lab system		Knowledge, Skills & Attitude	OSPE
	P(P)2	Demonstrate simple muscle twitch (SMT) from gastrocnemius sciatic preparation of frog using power lab		Knowledge, Skills & Attitude	OSPE
	P(P)3	Demonstrate the effect of two successive stimuli in nerve muscle preparation of frog using power lab	Practical	Knowledge, Skills & Attitude	OSPE
	P(P)4	Demonstrate the genesis of tetanus		Knowledge, Skills & Attitude	OSPE
	P(P)5	Demonstrate the onset of fatigue in nerve muscle preparation of frog using power lab		Knowledge, Skills & Attitude	OSPE
Skeletal muscle contraction	P8	Explain the excitation contraction coupling in skeletal muscle at molecular level Discuss the structure of sarcoplasmic reticulum and T tubules functions	Lecture/ Tutorial	Knowledge	MCQ
		- Define power stroke		Knowledge	MCQ
		- Discuss the role of ATP in muscle contraction		Knowledge	MCQ
		Discuss how the skeletal muscle is relaxed		Knowledge	MCQ
Skeletal muscle mechanics	P9	Define motor unit and motor unit recruitment	Lecture	Knowledge	MCQ
		Define the terms simple muscle twitch, summation, tetanization & fatigue		Knowledge	MCQ
		Give the differences B/W isotonic and isometric muscle contraction		Knowledge	MCQ
Smooth muscle mechanism	P10	List the types of smooth muscle with examples Discuss the membrane potential and action potential in smooth muscle	Lecture	Knowledge	MCQ / Google Classroom/ Assignment



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		Discuss the contractile mechanism & regulation of contraction by calcium ions in smooth muscles Discuss the nervous and hormonal control of smooth muscle contraction			
3rd week of development (II)	NMS-A9(E1)	<ul style="list-style-type: none"> Describe gastrulation and Neurulation. Discuss the differentiation of mesoderm and somite formation. 	Lecture	K	MCQ / OSPE
Derivatives of germ layers & neural crest cells	NMS-A10(E2)	List the derivatives of germ layers and neural crest cells.	Lecture	K	MCQ
Embryonic period	NMS-A11(E3)	Enlist week by week events during embryonic period.	Lecture	K	MCQ
Fetal Period	NMS-A12(E4)	List the main events of fetal period during each month.	Lecture	K	MCQ
Fetal Membranes And Placenta	NMS-A13(E5)	<ul style="list-style-type: none"> List the fetal membranes Describe the maternal and fetal components of placenta. Describe briefly the amniotic fluid and its function. Describe the structure of placental barrier. 	Lecture/ Tutorial	K	MCQ
Role Of Genes And Teratogens In Birth Defects	NMS-A14(E6)	<ul style="list-style-type: none"> Discuss the role of genes & environmental factors in causation of congenital formation. List the teratogens producing facial, palatal & oral malformation. 	Lecture	K	MCQ
Antenatal Diagnostic Techniques	NMS-A15(E7)	Discuss the most common antenatal diagnostic techniques: U/S, amniocentesis, chorion villus sampling	Lecture	K	MCQ
Branchial apparatus (PHARYNGEAL APPARATUS)	NMS-A16-17(E8-9)	<ul style="list-style-type: none"> Define components of pharyngeal apparatus Describe derivatives of each component. Discuss the important anomalies. 	Lecture/ Tutorial	K	MCQ / OSPE
	O6	Discuss anatomy/derivatives of pharyngeal arches	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	O7			Knowledge	
Development of, face,	O8	Discuss formation of face, palate and tongue		Knowledge	MCQ / OSPE



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palate, maxilla and mandible	O9-10	Interpret development of maxilla and mandible Explain age and sex-related changes in mandible		Knowledge	MCQ / OSPE
		Describe the development of TMJ		Knowledge	MCQ
Anatomical Terminologies	NMS-A18(Gr6)	Define: Fascia, ligaments, tendons, aponeurosis, raphe, capsule, synovial sheath and bursa.	Lecture	K	MCQ / OSPE
Osteology Of The Mandible & Hyoid	NMS-A19(Gr4)	<ul style="list-style-type: none"> Describe features and landmarks of mandible & Hyoid bones. Discuss age related changes in mandible. 	Lecture/Tutorial/SGD	KSA	MCQ / OSPE
Cervical Verterbra	NMS-A20(Gr5)	<ul style="list-style-type: none"> Describe the common features of cervical vertebra. Identify the typical & atypical vertebra by their relevant identifying features. 	Lecture/Tutorial/SGD	KSA	MCQ / OSPE
Cervical Joints	NMS-A21(Gr6)	Describe the cervical joints with their movements.	Lecture/Tutorial	KSA	MCQ / OSPE
Important Attachment Of Skull	NMS-A22(Gr7)	Recall the structures attached on important parts of skull bones.	Lecture/Tutorial	KSA	MCQ / OSPE
Scalp	NMS-A23(Gr8)	<ul style="list-style-type: none"> Discuss the associated clinical conditions associated with layers of scalp. Identify its neurovascular supply. 	Lecture	K	MCQ / OSPE
Face	NMS-A24(E10)	Describe formation of face from the prominences & its anomalies	Lecture/Tutorial	K	MCQ / OSPE
	NMS-A25(Gr9)	<ul style="list-style-type: none"> Define its boundaries. Tabulate muscle & their actions. Describe neurovascular supply, lymphatics and their clinical aspects. 	Lecture / Tutorial	K	MCQ / OSPE
Facial growth and development	O11	List the different Head and facial types	Lecture/Tutorial	Knowledge	
		Differentiate between narrow and broad facial profile		Knowledge	
		Define the terms orthognathic, Prognathic and Retrognathic		Knowledge	
	O12	Distinguish between male and female facial profile	Lecture/Tutorial	Knowledge	
		Describe the age changes taking place in a facial profile		Knowledge	
		Explain curve of occlusion		Knowledge	
Skin, Fascia And Neck Muscles	NMS-A26(Gr10)	<ul style="list-style-type: none"> Define the layers of neck. Describe the modifications of deep fascia. Describe contents of carotid 	Lecture	K	MCQ



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		sheath.			
Triangles Of Neck	NMS-A27-28(Gr11-12)	<ul style="list-style-type: none"> Describe the boundaries of the triangles & their subdivision. Enlist the component of each triangle. Describe cervical plexus. Discuss the clinical conditions related to them. 	Lecture / Tutorial	KSA	MCQ / OSPE
ORBITAL BOUNDARIES & CONTENTS	NMS-A29(Gr13)	<ul style="list-style-type: none"> Describe the bony boundaries. List the contents. Discuss the connections of Ciliary ganglion 	Lecture/ Tutorial	K	MCQ
				K	MCQ / OSPE
EXTRA-OCULAR MUSCLES	NMS-A30(Gr14)	<ul style="list-style-type: none"> Identify the extra-ocular muscles. Discuss neurovascular supply & actions of these muscles. 	Lecture/ Tutorial	KSA	MCQ / OSPE
Lacrimal apparatus	NSM-A31(Gr15)	<ul style="list-style-type: none"> List components of lacrimal apparatus. Trace the pathway of lacrimation. 	Lecture	K	MCQ / OSPE
Trigeminal Nerve	NMS-A32(Gr16)	Explain the course, relation, branches and distribution of Trigeminal nerve.	Lecture	KSA	MCQ / OSPE
Facial Nerve	NMS-A33(Gr17)	Explain the course, relation, branches and distribution of Facial nerve	Lecture	KSA	MCQ / OSPE
Temporal & Infratemporal fossae	NMS-A34(Gr18)	<ul style="list-style-type: none"> Identify the boundaries of temporal and infratemporal Fossa Describe the contents of infratemporal fossa. 	Lecture/ Tutorial	KSA	MCQ / OSPE
PTERYGOPALATINE FOSSA	NMS-A35(Gr19)	<ul style="list-style-type: none"> Discuss its boundaries & communications. Describe maxillary artery (3rd part) & maxillary nerve and connections of ganglion 	Lecture/ Tutorial	KSA	MCQ / OSPE
TMJ AND MUSCLES OF MASTICATION	NMS-A36(Gr20)	<ul style="list-style-type: none"> Describe the Temporomandibular joint Describe the muscles of mastication, their neurovascular supply Discuss the movements and associated clinical conditions. 	Lecture/ Tutorial	KSA	MCQ / OSPE
MAJOR VESSELS OF NECK	NMS-A37(Gr21)	<ul style="list-style-type: none"> Describe the origin and course of major arteries briefly in neck. List their branches in neck. Describe the formation and course of major veins in the neck with their tributaries. 	Lecture/ Tutorial	KSA	MCQ / OSPE
Maxillary artery	NMS-A38(Gr22)	Explain the course, relation and branches of maxillary artery and vein.	Lecture/ Tutorial	KSA	MCQ / OSPE



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LYMPHATIC DRAINAGE	NMS-A39(Gr23)	<ul style="list-style-type: none"> Describe the lymphatic drainage of head and neck. Discuss its clinical significance in relation to oral structures. 	Lecture/Tutorial	KSA	MCQ / OSPE
Surfaces of tooth	T1	Identify the surfaces of Anterior and Posterior teeth	Lecture/Tutorial	Knowledge	Quiz / Assignment
		Define the surfaces of anterior and Posterior teeth		Knowledge	Quiz / Assignment
		Define anatomical and clinical crown		Knowledge	Quiz
Landmarks	T1	Define Cusp, Tubercle, Cingulum, Lobes, Contact Points and Cervical Line	Lecture/Tutorial	Knowledge	Quiz / Assignment
		Define ridges and its types		Knowledge	Quiz / Assignment
	T2	Define Fossae, Sulcus, Pits and Fissure		Knowledge	Quiz / Assignment
		Discuss with examples line and point angles		Knowledge	Quiz / Assignment
		Discuss root configuration of maxillary and mandibular teeth		Knowledge	Quiz / Assignment



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Topic	Lecture	Neuro Musculo Skeletal Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
ENZYMES, VITAMIN D, CALCIUM & PHOSPHORUS					
Enzymes	B1	Define enzymes. Classify enzymes according to its structure Explain the mechanism of action enzymes.	Lecture/ Tutorial	Knowledge	Quiz / Assignment
	B2	Discuss Michaelis–Menten equation		Knowledge	Quiz / Assignment
	B3	Discuss the factors affecting enzyme activity & regulation of enzyme activity		Knowledge	Quiz / Assignment
	B4	Discuss the clinical importance of enzymes in diagnosis		Knowledge	Quiz / Assignment
	B(P)1	Estimate serum Alanine Transaminase by kit method	Practical	Skill	OSPE / VIVA
	B(P)2	Estimate serum Alkaline Phosphatase by kit method		Skill	OSPE / VIVA
Vitamin D	B5	Discuss the structure, functions ,RDA, sources & clinical abnormalities of Vitamin D	Lecture/ Tutorial	Knowledge	
Calcium & Phosphorus	B6	Discuss the structure, functions ,RDA, sources & clinical abnormalities of Calcium & Phosphorus		Knowledge	



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CONTENT BLOOD MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	General Anatomy	01	04 Weeks	Lecture/ Tutorial
	Histology Lecture	03		Lecture/ Tutorial/ Practical
	Practical	03		Practical
PHYSIOLOGY	Lecture	22		Lecture/ Tutorial
	Practical	07		Practical
BIOCHEMISTRY	Lectures	06		Lecture/ Tutorial
	Practical	03		Practical
ORAL BIOLOGY	Oral Biology	05		Lecture
	Tooth Morphology	04		Lecture
Total		54		



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Topic	Lecture	Blood - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Introduction	P1+P2	Describe the composition and main functions of blood & plasma proteins.	Lecture	Knowledge	MCQ
	P(P)1	Demonstrate the different methods of obtaining blood Samples	Practical	Knowledge, Skills & Attitude	OSPE
		Determine the PCV/ Hematocrit by Wintrob's Method		Knowledge, Skills & Attitude	OSPE
	P(P)2	Determine erythrocyte sedimentation rate (ESR) by Westergren's method	Practical	Knowledge, Skills & Attitude	MCQ / OSPE
Erythropoiesis	P3	Describe the RBC Morphology, its importance, source, site & process of erythropoiesis with reference to factors affecting it.	Lecture	Knowledge	MCQ / OSPE / Google assignment
		Estimate hemoglobin concentration by sahli's method	Practical	Knowledge, Skills & Attitude	OSPE
	P(P)3	Hemoglobin estimation by Sahli's hemoglobinometer.	Practical	Knowledge, Skills & Attitude	OSPE
Heme-Synthesis and Hemoglobin Pathology	B1	Describe hemoglobin synthesis functions & types	Lecture	Knowledge	Quiz / OSPE, Assignment
	B2	Describe the disorders of hemoglobin synthesis (Porphyrias)			
	B3	Describe the clinical manifestation of hemolytic anemia (Thalassemia & Sickle cell)	Lecture	Knowledge	Quiz / OSPE, Assignment
Minerals	B4	Discuss the functions, sources, transport pathway, & storage of iron Explain the clinical importance of iron	Lecture	Knowledge	Quiz / OSPE, Assignment
Vitamin B12	B5	Explain the sources vitamin B ₁₂ and Folic acids Relate clinical abnormalities to vitamin B ₁₂ and Folic acids deficiency	Lecture	Knowledge	Quiz/MCQ/ OSPE
	B(P)1	Demonstration of Hemoglobin electrophoresis	Practical	Skill	OSPE
Jaundice	B6	Discuss synthesis, types and fate. Of bilirubin	Lecture	Knowledge	Quiz/ MCQ/OSPE
		Classify Jaundice according to cause	Lecture	Knowledge	Quiz/ MCQ/OSPE



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	B(P)2	Demonstrate different enzymes done in Liver Function Test	Practical	Skill	OSPE
	B(P)3	Estimate bilirubin by spectrophotometer / Colorimetry	Practical	Skill	OSPE
Anemia	P4 + P5	Differentiate among various types of anemias on the basis of etiology & morphology (anemias & polycythemia)	Lecture/Tutorial	Knowledge	MCQ / OSPE / quiz assign
Blood Group	P6	Discuss different blood groups on the basis of agglutinogens and agglutinins	Lecture	Knowledge	MCQ
Blood Transfusion Reactions	P7	Describe indications, precautions and reactions of blood transfusion.	Lecture	Knowledge, Skills & Attitude	MCQ
	P(P)4	Neubaur's chamber & RBC count	Practical	Knowledge, Skills & Attitude	OSPE
	P(P)5	Determine own blood group	Practical	Knowledge, Skills & Attitude	OSPE
Hemostasis	P8	Define hemostasis (coagulation) & its steps along with functions of platelets (platelet plug formation)	Lecture/Tutorial	Knowledge	MCQ
	P9	Discuss the steps of clotting along with extrinsic and intrinsic clotting mechanisms.	Lecture	Knowledge	MCQ / OSPE
	P10	Enumerate the significance of the hemostatic function tests	Lecture	Knowledge, Skills & Attitude	MCQ
	P11	Discuss the factors which prevent clotting in the normal vascular system and fibrinolytic system. Mention common Conditions which causes excessive bleeding in human being	Lecture	Knowledge	MCQ
	P(P)6	Determine own bleeding time by Duke's method & clotting time by capillary method	Practical	Knowledge, Skills & Attitude	OSPE
	P12 + 13	Differentiate between different types of leukocytes along with their genesis & functions. (granulocytes & agranulocytes)	Flipped class room/Tutorial	Knowledge	MCQ / OSPE/ Assignment
Leukocytes	P14	Describe the various characteristics of lymphocytes, (its subtypes along with their functions)	Lecture	Knowledge	
	P(P)7	Preparation of peripheral blood smear & Determine the Differential Leucocyte count	Practical	Knowledge, Skills & Attitude	MCQ / OSPE
	P15	Discuss inflammation and lines of defense against Inflammation	Lecture	Knowledge	MCQ



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	P16	Discuss the types of immunity (innate / Acquired & Active /passive immunity)	Lecture	Knowledge	MCQ / Google assignment
Lymphatic system & Lymphoid organs	BM-A1(Gn1)	<ul style="list-style-type: none"> Describe the different components of lymphatic system Describe origin and termination of large lymphatic channels. Discuss the role of lymphatics in the spread of infection & cancer Classify the types of immunity. Tabulate the lymphoid cells and their function. Describe the histological features of main lymphoid organs. 	Lecture / Tutorial	K	MCQ / OSPE
Lymph node	BM-A2(H1)	Describe the structure of lymph node in detail	Lecture / Practical	K	MCQ / OSPE
	BM-A(P1)	Identify the histological features of lymph node under the microscope.	Practical	KSA	MCQ / OSPE
Thymus	BM-A3(H2)	Describe the histological structure & function of thymus	Lecture / Practical	K	MCQ / OSPE
	BM-A(P2)	Identify the histological features of thymus under the microscope.	Practical	KSA	MCQ / OSPE
Tonsil	BM-A4(H3)	Describe the gross & histological structure & function of tonsil	Lecture / Practical	K	MCQ / OSPE
	BM-A(P3)	Identify the histological features of tonsil under the microscope.	Practical	KSA	MCQ / OSPE
Immunity	P17	Describe the structure of antibody, types and their functions along with the structure of antigen	Lecture/Tutorial	Knowledge	MCQ / OSPE
	P18	Discuss mechanism of humoral & cell mediated immunity	Lecture	Knowledge	MCQ
	P19 +20	Discuss the different types of Hypersensitivity	Lecture	Knowledge	MCQ
	P21	Define the different blood disorder terminologies with their Causes (WBC & Platelets)	Flipped class room	Knowledge	MCQ
	P22	Discuss the complement system		Knowledge	MCQ / OSPE
Development Of Tooth And Its Supporting Structures	O1	List the stages associated with the development of tooth	Lecture/ Tutorial	Knowledge	MCQ / OSPE
		Describe the theories associated with tooth type determination		Knowledge	MCQ / OSPE



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	O2-03	Explain stages of tooth development		Knowledge	MCQ / OSPE
		Differentiate among various stages of tooth development on micrograph		Knowledge	MCQ / OSPE
	O4-05	Draw stages of tooth development		Skill	MCQ / OSPE
		Distinguish between root formation in single and multi-rooted teeth		Knowledge	MCQ / OSPE
Eruption	T1	Define Eruption and Emergence	Lecture/ Tutorial	Knowledge	MCQ / OSPE
		Describe sequence of eruption of primary and permanent teeth		Knowledge	MCQ / OSPE
		Explain the process of crown and root development		Knowledge	MCQ / OSPE
Primary Dentition	T2	Describe the major differences between primary and permanent dentition		Knowledge	Quiz / Assignment
		Discuss differences between pulp chambers and pulp canals present in primary and permanent teeth		Knowledge	Quiz
Oro Facial Complex	T3-4	Define embrasures and types		Knowledge	Quiz
		Discuss the purpose of embrasures		Knowledge	Quiz
		Define proximal contact areas visible in clinical pictures of oral cavity showing teeth.		Knowledge	Quiz
		Define interproximal spaces		Knowledge	Quiz



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CONTENT
CARDIOVASCULAR SYSTEM MODULE

Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	General Anatomy	03	03 Weeks	Lecture/ Tutorial
	Embryology	01		Lecture/ Tutorial
	Practical	02		Practical
PHYSIOLOGY	Lecture	17		Lecture/ Tutorial
	Practical	05		Practical
BIOCHEMISTRY	Lectures	05		Lecture/ Tutorial
	Practical	02		Practical
ORAL BIOLOGY	Oral Biology	08		Lecture
	Tooth Morphology	04		Lecture
Total		47		



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Topic	Lecture	CVS - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Gross & Microscopic Features Of Heart	CVS-A1(Gn1)	Discuss the gross and microscopic features of Heart.	Lecture / Practical	K	MCQ / OSPE
	CVS-A(P1)	Identify the histological features of cardiac muscle under the microscope.	Practical	KSA	MCQ / OSPE
Structure of heart	P1	Discuss the importance of CVS in physiology.	Lecture	Knowledge	MCQ
		Explain the physiology of cardiac muscle		Knowledge	MCQ
		Describe the structural and physiological differences between cardiac, skeletal & smooth muscle		Knowledge	MCQ
		Explain why intercalated discs are important to cardiac muscle function.		Knowledge	MCQ
Types Of Circulations	CVS-A2(Gn2)	Explain different types of circulation and their components.	Lecture	K	MCQ / OSPE
Development Of CVS	CVS-A3(E1)	<ul style="list-style-type: none"> Discuss the formation of cardiovascular system. 	Lecture	K	MCQ
Arteries, Veins & Capillaries	CVS-A4(Gn3)	<ul style="list-style-type: none"> Discuss the functional classification of vessels. Describe general structure of blood vessel. Compare the histological features of: arteries & veins; Elastic & muscular arteries & types of capillaries 	Lecture	K	MCQ / OSPE
	CVS-A(P2)	<ul style="list-style-type: none"> Identify the basic layers of blood vessels. Differentiate artery from vein 	Practical	KSA	MCQ / OSPE
Cardiac Muscle	P2	Describe the properties of cardiac muscles	Lecture	Knowledge	MCQ
Cardiac action potential	P3	Discuss the phases of action potential in cardiac muscle & relate them to the contractile behavior of the heart; Discuss the plateau phase	Lecture	Knowledge	MCQ / OSPE
		Compare the action potential of heart with the action potential of skeletal muscle		Knowledge	MCQ
Conducting System of heart	P4	Describe the heart's electrical conduction system	Lecture/ Tutorial	Knowledge	MCQ
		Explain why the SA node fires spontaneously and rhythmically;		Knowledge	MCQ
		Explain how the SA node excites the myocardium		Knowledge	MCQ



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ECG	P5	Discuss normal ECG	Lecture	Knowledge	MCQ
		Interpret different ECG waves.		Knowledge, Skills & Attitude	MCQ / OSPE
	P6+7	Define the following abnormalities in ECG Tachycardia Bradycardia Myocardial infarction/ischemia Atrial flutter, atrial fibrillation & heart block		Knowledge	MCQ
	P(P)2	Explain the interpretation of normal ECG.		Knowledge, Skills & Attitude	MCQ / OSPE
Cardiac Cycle	P8	Describe the events of cardiac cycle and relate them with pressure changes in the cardiac chambers, ECG and heart sounds	Lecture/ Tutorial	Knowledge	MCQ / OSPE / Google assignment
	P(P)3	Auscultate heart sounds.	Practical	Knowledge, Skills & Attitude	MCQ / OSPE
Cardiac Output	P9	Define cardiac output, venous return Discuss different factors regulating cardiac output and its importance	Lecture/ Tutorial	Knowledge	MCQ
	P10	Discuss the nervous and chemical factor that alter heart rate, stroke volume and cardiac output	Flipped class room	Knowledge	MCQ
Circulation	P11	Discuss the physiological characteristics of circulation	Lecture	Knowledge	MCQ
Metabolism of lipids	B1	Discuss the digestion & absorption of Lipids	Lecture/ Tutorial	Knowledge	Quiz / OSPE, Assignment
	B2	Describe the chemistry & metabolism of lipids	Lecture/ Tutorial	Knowledge	Quiz / OSPE, Assignment
	B3	Discuss the associated clinical disorders of lipoproteins		Knowledge	Quiz / OSPE, Assignment
	B(P)1	Estimate serum cholesterol by kit method	Practical	Skill	OSPE
	B4	Calculate the energy production by oxidation of fatty acid	Lecture/ Tutorial	Knowledge	MCQ / Assignment
	B5	Discuss the synthesis of ketone bodies	Lecture/ Tutorial	Knowledge	MCQ/ Assignment
		Discuss utilization of ketone bodies by the human body		Knowledge	Quiz / Assignment
	B(P)2	Estimate total cholesterol in the given sample	Practical	Skill	OSPE
Blood Pressure	P12	Define the following terms: arterial blood pressure Systolic blood pressure	Lecture	Knowledge	MCQ



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		Diastolic blood pressure Mean arterial blood pressure Pulse pressure			
		Describe short term regulation of blood pressure		Knowledge	MCQ/ Google assignment
	P13	Describe the intermediate regulation of blood pressure		Knowledge	MCQ
		Describe the long term regulation of blood pressure		Knowledge	MCQ
		Explain renin Angiotensin Aldosterone system in controlling arterial pressure		Knowledge	MCQ / OSPE
	P(P)1	Examination of arterial pulse & Calculate the pulse rate	Practical	Knowledge, Skills & Attitude	MCQ / OSPE
	P(P)4	Record blood pressure by palpatory and Auscultatory methods during different body positions such as lying, Sitting & standing.	Practical	Knowledge, Skills & Attitude	MCQ / OSPE
	P(P)5	Demonstrate refractory period.	Practical	Knowledge, Skills & Attitude	MCQ / OSPE
	P14	Discuss the local control of blood flow (microcirculation & capillary system) in response to tissue needs	Lecture	Knowledge	MCQ
		Discuss the mechanisms of blood flow control		Knowledge	MCQ
		Explain the humoral control of the circulation Explain how vasomotion influence blood flow (local, hormonal and neural)		Knowledge	MCQ
Edema	P15	Explain edema along with its causes and safety factors (fluid filtration across capillaries)	Lecture	Knowledge	MCQ
Cardiac Failure & Shock	P16+17	Discuss cardiac failure & its types. Discuss the types of shock and its pathophysiology	Lecture	Knowledge	MCQ/ quiz assign
Enamel	O1-O3	Explain the components of human enamel	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	O4-O5	Discuss various stages of enamel formation	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	O6-O8	Identify on micrograph the various structural feature of human enamel histologically and developmentally present	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	O8	Describe the clinical relevance and age changes in human enamel	Lecture/ Tutorial	Knowledge	MCQ / OSPE
Maxillary	T1	Describe the morphology of	Lecture/	Knowledge	MCQ /



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Central Incisors		maxillary central incisors on pictures and models of teeth.	Tutorial		OSPE
		Enumerate the labial, palatal, mesial, distal, and incisal aspects of maxillary central incisors		Knowledge	MCQ / OSPE
Maxillary Lateral Incisors	T2	Relate the morphology of maxillary lateral incisors on pictures and models of teeth		Knowledge, Skill	Google Classroom Quiz
		Differentiate between maxillary central and lateral incisors on the basis of their morphology		Knowledge, Skill	Tooth Models Google Classroom Quiz
Mandibular Central Incisors	T3	Relate the morphology of mandibular central incisors on pictures and models of teeth	Lecture/ Tutorial	Knowledge	Tooth Models Google Classroom Quiz
		Describe the aspects of mandibular central incisors		Knowledge	Tooth Models Google Classroom Quiz
Mandibular Lateral Incisors	T4	Describe morphology and aspects of mandibular lateral incisors		Knowledge	Tooth Models Google Classroom Quiz
		Differentiate between mandibular central and lateral incisors on the basis of their morphology		Knowledge	Quiz Assignment



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CONTENT RESPIRATORY MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	General Anatomy	01	02 Weeks	Lecture/ Tutorial
	Gross Anatomy	02		Lecture/ Tutorial
	Practical	01		Practical
PHYSIOLOGY	Lecture	13		Lecture/ Tutorial
	Practical	01		Practical
BIOCHEMISTRY	Lectures	05		Lecture/ Tutorial
	Practical	01		Practical
ORAL BIOLOGY	Oral Biology	14		Lecture
	Tooth Morphology	03		Lecture
Total		41		



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Topic	Lecture	Respiratory - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Introduction	RM-A1(Gn1)	<ul style="list-style-type: none"> State boundaries of thoracic cavity. Identify the contents of thorax at their respective position. 	Lecture	K	MCQ / OSPE
	P1	Describe the functions of different respiratory tract structures	Lecture	Knowledge	MCQ
		Differentiate between the conducting and respiratory zones of respiratory passages		Knowledge	MCQ
		Describe the dead space air its significance Define the minute ventilation and alveolar Ventilation		Knowledge	MCQ
Mechanics Of Respiration	P2	Explain mechanics of respiration	Lecture	Knowledge	MCQ
		Name the muscles of respiration and describe their roles in breathing		Knowledge	MCQ / OSPE
		Explain how pressure gradients account for the flow of air in and out of the lungs; how these pressure gradients are produced		Knowledge	MCQ / OSPE
		Explain Boyle's law		Knowledge	MCQ / OSPE
Nose & Paranasal Air Sinuses	RM-A2(Gr1)	<ul style="list-style-type: none"> Describe the features of external nose, nasal cavity and the openings in meatuses. Name the bones forming the nasal cavity & septum. Discuss the formation and clinical importance of anastomoses at little's area. List the paranasal sinuses & their location. Describe boundaries of maxillary sinus and its clinically important relation with maxillary teeth. 	Lecture / Tutorial / SGD	Knowledge	MCQ / OSPE
Larynx	RM-A3(Gr2)	<ul style="list-style-type: none"> Describe its extent & location. Enlist the cartilages & membranes of larynx. Tabulate the muscles, their nerve supply & actions. Discuss the clinical conditions related to the innervation. 	Lecture / Tutorial / SGD	K	MCQ / OSPE
	RM-A(P1)	Identify the histological features of trachea under the microscope.	Practical	KSA	MCQ / OSPE



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Lung Compliance	P3	Discuss the Work of breathing	Lecture/ Tutorial	Knowledge	
		Describe lung compliance especially with reference to the role of surfactant		Knowledge	MCQ
Alveolar Ventilation	P4	Discuss ventilation/perfusion ratio	Lecture	Knowledge	MCQ
Respiratory Membrane & Gases Exchange	P5	Explain the respiratory membrane and factors affecting diffusion of gases across the respiratory membrane	Lecture	Knowledge	MCQ / OSPE/ google assignment
		Define partial pressure		Knowledge	MCQ
		Discuss its relationship to a gas mixture such as air		Knowledge	MCQ
		Contrast composition of inspired air and alveolar air		Knowledge	MCQ
		Discuss the partial pressure of Oxygen and Carbon dioxide in the venous blood, arterial blood, and alveolar air and in tissue cells.		Knowledge	MCQ / OSPE
		Discuss the effect of partial pressure for gas exchange		Knowledge	MCQ
Pulmonary Circulation	P6	Discuss pulmonary circulation with reference to pulmonary edema	Lecture	Knowledge	MCQ
Lung Volume And Capacities	P7	Describe different lung volumes and capacities along with their physiological importance	Lecture	Knowledge	MCQ / OSPE
	P(P)1	Interpret different lung volumes and capacities by Spirometry.	Practical	Knowledge, Skills & Attitude	MCQ / OSPE
Oxygen Transport	P8	Discuss oxygen transport in the blood with O ₂ -Hb dissociation curve	Lecture/ Tutorial	Knowledge	MCQ / OSPE/ google classroom assignment
		Explain the information which can be obtained from the oxygen hemoglobin dissociation curve graph and its shift to the left and right sides with especial reference to Bohr's effect		Knowledge	MCQ / OSPE
Carbandioxid e Transport	P9	Explain carbon dioxide transport in the blood withreference to Haldane effect	Lecture	Knowledge	MCQ/ quiz assign
		Explain 3 ways in which blood transports CO ₂		Knowledge	MCQ
Nervous Regulation	P10	Describe the role of the four main groups of nuclei in the medulla and pons that control breathing	Lecture	Knowledge	MCQ
		Discuss the factors that can		Knowledge	MCQ



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		influence rate and depth of breathing			
Chemical Regulation	P11	Describe locations of chemoreceptors that monitor blood pH and gas concentrations	Lecture	Knowledge	MCQ
		Discuss the role of chemoreceptors in the regulation of respiration		Knowledge	MCQ
Respiratory Disorders	P12	Define hypoxia, cyanosis, dyspnea, hypercapnea	Lecture	Knowledge	MCQ
		Discuss the types of hypoxia		Knowledge	MCQ
	P13	Define and give the causes of following disorders Emphysema Bronchitis Asthma Pneumonia Pulmonary edema	Lecture	Knowledge	MCQ / Assignment
Dentin	O1+2	Discuss the basic structure & composition of dentine	Lecture/Tutorial	Knowledge	MCQ / OSPE
	O3	Summarize the types of dentine according to development and histology	Lecture/Tutorial	Knowledge	MCQ / OSPE
	O4	Identify on micrograph various histological feature of dentine	Lecture/Tutorial	Knowledge	MCQ / OSPE
	O5	Explain structural and functional histology of dental pulp cells.	Lecture/Tutorial	Knowledge	MCQ / OSPE
	O6	Critically analyze the theories of dentine sensitivity	Lecture/Tutorial	Knowledge	MCQ / OSPE
Tooth Supporting Structures	O7-O9	Define periodontium,	Lecture/Tutorial	Knowledge	MCQ / OSPE
		List the component of periodontium.		Knowledge	MCQ / OSPE
		Explain the biochemical composition of cementum		Knowledge	MCQ / OSPE
	O10-O11	Distinguish among different cementum varieties on histological basis	Lecture/Tutorial	Knowledge	MCQ / OSPE
	O12-13	Classify periodontal ligament according to architectural arrangement	Lecture/Tutorial	Knowledge	MCQ / OSPE
		Discuss the cells of periodontal ligament space		Knowledge	MCQ / OSPE
	O14	Discuss the structure of alveolar bone	Lecture/Tutorial	Knowledge	MCQ / OSPE
Maxillary Canines	T1-T2	Enumerate the labial, palatal, mesial, distal, and incisal aspects of maxillary canine.	Lecture/Tutorial	Knowledge	Quiz Assignment
Mandibular Canines	T3	Describe the labial, lingual, mesial, distal, and incisal aspects of mandibular canine.		Knowledge	Quiz Assignment
		Differentiate between maxillary		Knowledge	



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		and mandibular canines on the basis of their morphology			
Water , Ph And Buffers	B1	Explain the biochemical structure of water	Lecture	Knowledge	Quiz Assignment
		Discuss the physical and chemical properties of Water		Knowledge	Quiz
	B2	Define Buffers and name different types of buffers	Lecture	Knowledge	MCQ / Google Assignment ,OSPE
	B3	Discuss acidosis & alkalosis (I)	Lecture	Knowledge	Quiz / OSPE, google Classroom
	B4	Discuss acidosis & alkalosis (II)		Knowledge	
Vitamins	B5	List the sources of Vitamin B1, B2, B3 & B6	Lecture	Knowledge	MCQ/OSPE
		Explain the functions of Vitamin B1, B2, B3 & B6		Knowledge	MCQ/OSPE
		Discuss the clinical abnormalities of Vitamin B1, B2, B3 & B6		Knowledge	MCQ/OSPE
	B6	List the sources of Vitamin E & K	Lecture	Knowledge	MCQ/OSPE
		Explain the functions of Vitamin E & K		Knowledge	MCQ/OSPE
		Discuss the clinical abnormalities of Vitamin E & K		Knowledge	MCQ/OSPE
	B(P)1	Detection of pH by litmus paper of PH meter, & Hypertonic, Hypotonic & isotonic solutions	Practical	Skill	OSPE



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CONTENT				
GASTROINTESTINAL TRACT MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	General Anatomy	01	03 Weeks	Lecture/ Tutorial / SGD
	Gross Anatomy	06		Lecture/ Tutorial / SGD
	Practical	03		Practical
PHYSIOLOGY	Lecture	15		Lecture/ Tutorial
BIOCHEMISTRY	Lectures	12		Lecture/ Tutorial
	Practical	04		Practical
ORAL BIOLOGY	Oral Biology	14		Lecture
	Tooth Morphology	04		Lecture
Total		59		



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Topic	Lecture	GIT - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/Skill/ Attitude	Assessment Tools
Introduction	GIT-A1(Gn1)	<ul style="list-style-type: none"> Identify abdominal viscera in relation to regions and quadrants 	Lecture	K	MCQ
	P1	Discuss functions of GIT	Lecture	Knowledge	MCQ
		Describe the structural and functional organization of the digestive system		Knowledge	MCQ
		Describe the physiological anatomy and the layers of Gastrointestinal tract		Knowledge	MCQ
		Give characteristic features of GIT smooth muscle and its enteric nervous system		Knowledge	MCQ / OSPE / Google classroom assignment
Oral Cavity	GIT-A2(Gr1)	<ul style="list-style-type: none"> Discuss the boundaries & divisions of the oral cavity Describe the vestibule and oral cavity proper with their contents 	Lecture / Tutorial / SGD	K	MCQ / OSPE
	GIT-A(P1)	<ul style="list-style-type: none"> Describe the general features of oral mucosa in oral cavity. List the types of oral epithelium. Discuss the histology of lips, cheek, palate and gums. 	Practical	KSA	MCQ / OSPE
Hard & Soft Palate	GIT-A3(Gr2)	<ul style="list-style-type: none"> Describe the boundaries. Tabulate the muscles, neurovascular supply and actions. Discuss the clinical (Gag reflex in dentistry) Describe how primary and secondary palate give rise to adult palate. Discuss embryologic basis of cleft palate & associated cleft lip. 	Lecture	KSA	MCQ / OSPE
Salivary Glands	GIT-A4(Gr3)	<ul style="list-style-type: none"> Describe location, relations and neurovascular & lymphatic supply of these gland. List the structure passing through parotid gland. Discuss clinical correlations Describe in general the acini, duct system & stroma. Differentiate the 3 major salivary glands on the basis of mucous and serous acini. Discuss the derivation of secretory part, duct system and 	Lecture	KSA	MCQ / OSPE



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		stroma from different embryonic sources.			
	GIT-A(P2)	Differentiate the 3 major salivary glands on the basis of mucous and serous acini.	Practical	KSA	MCQ / OSPE
	O1	List the functions of saliva	Lecture	Knowledge	MCQ
	O2	Describe the gross anatomy of the salivary glands		Knowledge	MCQ / OSPE
	O3	Differentiate between the major salivary glands		Knowledge	MCQ / OSPE
	O4- O5	Identify various cells, ducts and other anatomical structures with in salivary gland on simulation	Lecture	Knowledge	MCQ / OSPE
	O6	Outline the age changes and diseases associated with salivary glands		Knowledge	MCQ
Tempromandibular Joint	O7-08	Discuss the capsule, ligaments and disc of TMJ	Lecture	Knowledge	MCQ / OSPE
		Describe muscles of mastication on simulation		Skill	MCQ / OSPE
		Explain biomechanics and innervations of joint		Knowledge	MCQ
		Enumerate the synovial membrane		Knowledge	MCQ
Tongue	GIT-A5(Gr4)	<ul style="list-style-type: none">Describe the division and external features of tongue.Tabulate the muscles, their action and nerve supply.Describe the vascular supply, innervation and lymphatic drainageDiscuss the clinical correlation.Describe the histological features of tongue: Mucosal papillae, taste buds, lingual salivary glands etc.Describe the development of the tongue & its anomalies.	Lecture / Tutorial / Practical	Knowledge	MCQ / OSPE
	GIT-A(P3)	Identify the characteristic identification features of tongue.	Practical	KSA	MCQ / OSPE
Mandible	GIT-A6 (Gr5)	Identify the different parts and structures related to mandible on the given model/picture	Lecture / Tutorial	KSA	MCQ / OSPE
Pharynx	GIT-A7(Gr6)	<ul style="list-style-type: none">Describe the location, extent & divisions of pharynx.Identify features related to each part (tonsils, Pharyngotympanic tube Ostia etc.).	Lecture / Tutorial	KSA	MCQ / OSPE
Smooth	P2	List the types of smooth muscle	Lecture	Knowledge	MCQ



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Muscle		with examples			
		Discuss the membrane potential and action potential in smooth muscle		Knowledge	MCQ
		Discuss the contractile mechanism & regulation of contraction by calcium ions in smooth muscles		Knowledge	MCQ
		Discuss the nervous and hormonal control of smooth muscle contraction (enteric / intrinsic nervous system) of GIT		Knowledge	MCQ / OSPE
Regulation Of Digestive System	P3	Discuss the neural control of GIT - Enteric Nervous System.	Lecture	Knowledge	MCQ
		Describe the role of "interstitial cells of Cajal" in generation of basic electrical rhythm (BER) of the GIT and its relation to smooth muscle contractile activity.		Knowledge	MCQ
		Contrast the effects of parasympathetic and sympathetic nervous activity in modulating GI activity (extrinsic nervous control) of GIT		Knowledge	MCQ
		Discuss the hormonal control of GIT.		Knowledge	MCQ
		Describe the types of GIT reflexes.		Knowledge	MCQ
Mastication/ Deglutition	P4 + P5	Discuss the chewing reflex	Lecture	Knowledge	MCQ
		Discuss the phases of swallowing		Knowledge	MCQ/ quiz assign
		Discuss the swallowing reflex.		Knowledge	MCQ
		List the functions of lower esophageal sphincter		Knowledge	MCQ
		Describe the mechanisms that prevent food from entering the nasal cavity and larynx during swallowing		Knowledge	MCQ
Motor Functions Of Stomach	P6	List the functions of stomach	Lecture	Knowledge	MCQ
		Describe Motor functions of stomach along migratory motor complex (MMC) and factors promoting and inhibiting gastric emptying		Knowledge	MCQ
Movement Small Intestine	P7	Describe the normal and abnormal movements of small intestine.	Lecture/ Tutorial	Knowledge	MCQ / OSPE
		Explain peristaltic rush and migrating motor complex.		Knowledge	MCQ/ assignment
		What structures increase the absorptive surface area of the small intestine?		Knowledge	MCQ
		Distinguish between segmentation and the migrating motor complex of the small intestine.		Knowledge	MCQ



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		Explain how food in the duodenum inhibits motility and secretion in the stomach		Knowledge	MCQ
Small Intestine Secretions And Absorptions	P8	Describe the glands of small intestine with their secretions and functions.	Flipped class room	Knowledge	MCQ
		Describe the origin, formation, composition, functions and regulations of Succus entericus		Knowledge	MCQ
		Name enzymes of the intestinal brush border, and identify the substrate or function of each.		Knowledge	MCQ
		Describe how each type of nutrient is absorbed by the small intestine.		Knowledge	MCQ
Movements Large Intestine	P9	Describe the normal and abnormal movements of large Intestine	Lecture	Knowledge	MCQ
Defecation Reflex		Discuss the mechanism and centers involved in Defecation Reflex		Knowledge	MCQ
Saliva	P10	Describe the origin, formation composition and functions of saliva.	Lecture/ Tutorial	Knowledge	MCQ
		List the factors that increase salivary secretion.		Knowledge	MCQ
		Discuss the nervous regulation of salivary secretion.		Knowledge	MCQ
Gastric Juice	P11	Describe the origin, formation, composition, functions and Phases of regulations of gastric juice secretion	Lecture	Knowledge	MCQ
Pancreatic Juice	P12	Describe the origin, formation, composition, functions and Phases of regulations of pancreatic juice and factors effecting it.	Lecture	Knowledge	MCQ
Liver Bile Juice	P13	List the functions of liver	Lecture	Knowledge	MCQ
		Describe the origin, formation, composition, functions and regulations of bile juice discuss the functions of gall bladder and its emptying		Knowledge	MCQ
Large Intestinal Juice	P14	Describe the origin, formation, composition, functions and regulations of large intestinal juice	Lecture	Knowledge	MCQ
GI Hormones	P15	Discuss in detail the secretion and role of following GIT hormones in digestion of food: Cholecystokinin Secretin	Lecture/ Tutorial	Knowledge	MCQ / OSPE / Assignment



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		GIP Gastrin Gastrin Releasing Peptide Pancreatic Polypeptide Somatostatin Vasoactive Intestinal Polypeptide Motilin			
Oral Mucosa	O9	List the functions of oral mucosa	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	O9	Locate the boundaries of oral cavity on the given simulation	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	O10	Differentiate various types of oral mucosa	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	O11-12	Explain the structural and functional histology of epithelium and connective tissue	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	O13	Outline the age changes that are associated with oral mucosa	Lecture/ Tutorial	Knowledge	MCQ
Tongue	O14	Explain the gross features and nerve supply of tongue	Lecture/ Tutorial	Knowledge	MCQ / OSPE
Maxillary 1st Premolar	T1	Enumerate the buccal, palatal, mesial, distal, and occlusal aspects of maxillary first premolar.	Lecture/ Tutorial	Knowledge	
Maxillary 2nd Premolar	T2	Enumerate the buccal, palatal, mesial, distal, and occlusal aspects of maxillary second premolar		Knowledge	
		Differentiate between 1st and 2nd maxillary premolar on the basis of their morphology		Knowledge	
Mandibular 1st Premolar	T3	Enumerate buccal, lingual, proximal and occlusal aspects of mandibular 1st premolar		Knowledge	
Mandibular 2nd Premolar	T4	Describe buccal, lingual, proximal and occlusal aspects of mandibular 2nd premolar		Knowledge	
		Differentiate between mandibular 1st and 2nd premolars on the basis of their morphology		Knowledge	
Metabolism Of Carbohydrate	B1	Discuss the digestion & absorption of carbohydrates	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	B2	Define glycolysis	Lecture/ Tutorial	Knowledge	MCQ / OSPE / Assignment
		Explain the reactions involved in Glycolytic pathway		Knowledge	MCQ / OSPE / Assignment
		Discuss the fate of Pyruvate		Knowledge	MCQ / OSPE / Assignment
	B3	Explain the reactions of citric acid	Lecture/	Knowledge	MCQ /



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		cycle	Tutorial		OSPE / Assignment
	B(P)1	Estimate blood glucose by enzymatic kit method		Skill	OSPE
	B4	Define Gluconeogenesis	Lecture/ Tutorial	Knowledge	MCQ Assignment
		Explain the reactions and regulations of Gluconeogenesis		Knowledge	MCQ Assignment
	B5	Discuss glycogen synthesis & degradation	Lecture/ Tutorial	Knowledge	MCQ Assignment
	B(P)2	Detect normal, hypoglycemic & hyperglycemic graphs by Glucose Tolerance Test	Practical	Skill	OSPE
	B6	Describe the purpose & importance HMP-Shunt	Lecture/ Tutorial	Knowledge	MCQ Assignment
		Explain the reactions of HMP-Shunt		Knowledge	MCQ Assignment
	B7	Discuss blood glucose, its clinical significance and metabolic disturbances that occur in Diabetes Mellitus.	Lecture/ Tutorial	Knowledge	MCQ/OSPE /Assignment †
	B8	Discuss the structure of electron transport chain and synthesis of ATP Explain the functions of electron transport chain	Lecture/ Tutorial	Knowledge	MCQ/OSPE Assignment
Metabolism Of Protein	B9	Discuss the digestion & absorption of proteins	Lecture/ Tutorial	Knowledge	Quiz Assignment
	B10	Explain the reactions of amino acids		Knowledge	Quiz Assignment
		Discuss Ammonia Metabolism		Knowledge	MCQ/OSPE
	B(P)3	Estimate serum protein by kit method	Lecture/ Tutorial	Skill	VIVA / OSPE
	B11	Discuss the metabolism of specific amino acids & its inborn errors (Phenylalanine & Tyrosine)		Knowledge	MCQ/OSPE Assignment
	B(P)4	Demonstrate chromatography.	Lecture	Skill	OSPE
Minerals	B12	Discuss the sources & RDA of Fluoride & other important Minerals	Lecture	Knowledge	MCQ/OSPE Assignment
		Discuss the functions of Fluoride & other important Minerals		Knowledge	Quiz Assignment
		Discuss the clinical abnormalities of Fluoride & other important Minerals		Knowledge	MCQ/OSPE Assignment



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CONTENT				
CENTRAL NERVOUS SYSTEM MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	General Anatomy	03	03 Weeks	Lecture/ Tutorial
	Gross Anatomy	01		
	Neuro - Anatomy	22		Lecture/ Tutorial
	Embryology	01		
	Histology	01		
	Practical	03		Practical
PHYSIOLOGY	Lecture	20		Lecture/ Tutorial
	Practical	04		Practical
BIOCHEMISTRY	Lectures	06		Lecture/ Tutorial
	Practical	00		Practical
ORAL BIOLOGY	Oral Biology	03		Lecture
	Tooth Morphology	04		Lecture
Total		68		



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Topic	Lecture	CNS - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Cranial Fossae	CNS-A1(Gr1)	<ul style="list-style-type: none"> Identify the boundaries, bones and foramina of 3 cranial fossae. Relate the contents passing through the foramen. 	Flipped classroom / Tutorial / SGD	KSA	MCQ / OSPE
Divisions Of Nervous System	CNS-A2(NA1)	<ul style="list-style-type: none"> List the subdivisions (CNS, PNS, ANS) of nervous system & their component parts. 	Lecture	Knowledge	MCQ / OSPE
Development Of Nervous System	CNS-A3(E1)	<ul style="list-style-type: none"> Discuss differentiation of neural tube in brain vesicles. List the derivatives of brain vesicles Define Alar and Basal plates. 	Lecture	K	MCQ / OSPE
Excitable And Non-Excitable Cells	CNS-A4(NA2)	<ul style="list-style-type: none"> Tabulate different cells types (neuron & neuroglia) and their function. 	Lecture	Knowledge	MCQ
Introduction	P1	Describe the general organization of central and peripheral nervous system.	Lecture	Knowledge	MCQ
		Explain how stimulation of a neuron causes local electric change in its membrane		Knowledge	MCQ
		Explain how electrical changes generate an action potential in a neuron		Knowledge	MCQ
Neuron	P2	Describe the structure and functions of Neuron	Lecture	Knowledge	MCQ
		Classify the nerve fibers		Knowledge	MCQ
Reflex Action		Define reflex action		Knowledge	MCQ/ quiz assign
		list its components		Knowledge, Attitude	MCQ
Meninges	CNS-A5(NA3)	<ul style="list-style-type: none"> Describe the Dural folds and their function. Define: Arachnoids Mater, sub arachnoid Space, arachnoid villi & granulations. Describe Pia mater, its modification the denticulate ligament and its contribution to choroid plexus. Discuss importance of epidural, subdural and subarachnoid spaces. 	Lecture	K	MCQ
Spinal Cord	CNS-A6-7(NA4-5)	<ul style="list-style-type: none"> Describe the gross appearance of Spinal cord. State the location and function of Anterior & Posterior horns. 	Lecture	KSA	MCQ / OSPE



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		<ul style="list-style-type: none"> Name the nuclei of spinal cord along with its laminar organization. Describe the tracts in detail with function of each and clinical conditions related to these tracts 			
	CNS-A(P1)	Explain the microscopic features of spinal cord.	Practical	KSA	MCQ / OSPE
Spinal & Peripheral Nerve	CNS-A8(Gn1)	<ul style="list-style-type: none"> Summarize formation of typical spinal nerve. Differentiate spinal and peripheral nerves. 	Lecture	K	MCQ / OSPE
Blood Brain Barrier	CNS-A9(NA6)	Explain the structure and functions of blood brain barrier	Lecture	K	MCQ
Ventricular System Of Brain & Cerebrospinal Fluid	CNS-A10(NA7)	<ul style="list-style-type: none"> Relate the parts of ventricular system with the lobes of brain. Identify the openings /apertures of ventricular system Define Choroid Plexuses Describe boundaries of 4th ventricle & features related to its floor Discuss clinical correlation of CSF flow. 	Lecture	K	MCQ / OSPE
Histology Of Spinal Cord, Cerebellum And Cerebrum	CNS-A11(H1)	Explain the microscopic features of spinal cord, cerebellum and cerebrum	Lecture	K	MCQ
Synapse	P3	List the properties of synapse.	Lecture	Knowledge & Attitude	MCQ / OSPE
		Explain how electric signals are transmitted from one neuron to another		Knowledge	MCQ
		Explain how the stimulation of a postsynaptic cell is stopped		Knowledge	MCQ
Receptors	P4	Describe the properties & functions of different types of Receptors	Lecture	Knowledge	MCQ
		Classify receptors according to location and stimulus type they detect (pain touch temperature)		Knowledge & Attitude	MCQ/ google assignment
		Discuss receptor potential and transduction of sensory stimuli into nerve impulses		Knowledge	MCQ
	P(P)1	Demonstrate Superficial and Deep tendon Reflexes.	Practical	Knowledge, Skills &Attitude	MCQ / OSPE
Ascending Tracts	P5	List the different types of sensory pathways	Lecture/ Tutorial	Knowledge & Attitude	MCQ
		Discuss the transmission of sensory information into CNS (DCML)		Knowledge& Attitude	MCQ / OSPE/ google classroom



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					assignment
	P6	Discuss the transmission of sensory information into CNS (Anterolateral system)		Knowledge & Attitude	MCQ / OSPE
Types Of Pain	P7 +P8	Discuss the types of pain and their qualities	Lecture/ Tutorial	Knowledge & Attitude	MCQ/ quiz assign
		Discuss pain receptors and dual pathways for transmission of pain signals into CNS		Knowledge & Attitude	MCQ
		Discuss referred pain and its mechanism		Knowledge	MCQ
Analgesia System And Referred Pain		Discuss the analgesia system in the brain and spinal cord		Knowledge & Attitude	MCQ
		Explain the brain opioids system		Knowledge & Attitude	MCQ
		Define referred pain		Knowledge	MCQ
		Discuss common painful conditions (trigeminal neuralgia headache, herpes zoster, thalamic syndrome)		Knowledge & Attitude	MCQ/ quiz assign
Touch And Temperature	P9	Discuss sensation of touch and temperature	Lecture	Knowledge & Attitude	MCQ
Spinal Cord	P10 + P11	Discuss the organization of spinal cord for motor function	Lecture	Knowledge & Attitude	MCQ
		Discuss the role of muscle spindle and Golgi tendon organ muscles control		Knowledge	
		Discuss the spinal cord reflexes		Knowledge	
Sensory Cortex	P12	Explain location and functions of different areas of sensory cortex	Lecture	Knowledge	MCQ
Motor Cortex	P13	Explain location and functions of different areas of motor cortex in execution and regulation of motor movements	Lecture	Knowledge	MCQ
Descending Motor Pathways	P14	Compare the pathway of pyramidal efferent tracts extra pyramidal tracts in terms of origin, area of decussating, terminations and function	Lecture	Knowledge & Attitude	MCQ
		Differentiate between Upper motor neuron and lower motor neuron lesions		Knowledge & Attitude	MCQ
Cranial Nerves (I-XII)	CNS-A12-14(NA8-10)	<ul style="list-style-type: none"> • Describe the origin, exit & functional components of nerves. • Describe the brief course of each nerve. • Tabulate their branches & area of supply. • Discuss the impact of injury. 	Lecture/ Tutorial	Knowledge, Skill & Attitude	MCQ / OSPE



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Brainstem (Midbrain, Pons & Medulla) & Role Of Brain Stem	CNS-A15-17(NA11-13)	<ul style="list-style-type: none"> Describe the location and division of brain stem. Describe the gross appearance of Medulla, Pons and Midbrain and emergence of cranial nerves. 	Lecture / Tutorial	Knowledge, Skill & Attitude	MCQ / OSPE
	P15	Outline the major functions of brain stem Midbrain Pons Medulla oblongata	Lecture/ Tutorial	Knowledge	MCQ
		Discuss the control of motor functions by the brain stem		Knowledge & Attitude	MCQ
Cerebellum Role Of Cerebellum	CNS-A18(NA14)	<ul style="list-style-type: none"> List the 3 anatomical and functional lobes of cerebellum. Describe the external features and blood supply 	Lecture	Knowledge, Skill & Attitude	MCQ / OSPE
	CNS-A(P2)	Explain the microscopic features of cerebellum	Practical	KSA	MCQ / OSPE
	P16	Explain functional anatomy of cerebellum	Lecture		
		Explain the input and output connections of cerebellum		Knowledge	MCQ
		Discuss the functions of cerebellum		Knowledge	MCQ / OSPE
		Discuss the different cerebellar disorders		Knowledge, Skill & Attitude	MCQ / OSPE
	P(P)2	Demonstrate Cerebellar Function Test	Practical	Knowledge, Skill & Attitude	MCQ / OSPE
	P(P)3	Demonstrate cranial nerve examination.	Practical	Knowledge, Skill & Attitude	MCQ / OSPE
Basal Ganglia	CNS-A19(NA15)	<ul style="list-style-type: none"> Identify the different parts of basal nuclei on laminated picture/CT scan 	Lecture	Knowledge, Skill & Attitude	MCQ / OSPE
	P17	Explain different types of structures that make the basal ganglia Explain the direct and indirect pathway of basal ganglia Explain the functions of basal ganglia and its related disorders	Lecture/ Tutorial	Knowledge & Attitude	MCQ / OSPE
Diencephalon (Thalamus And Hypothalamus)	CNS-A20(NA16)	<ul style="list-style-type: none"> Identify the different parts of diencephalon in laminated picture/CT scan 	Lecture	Knowledge, Skill & Attitude	MCQ / OSPE
	P18	Describe the parts of limbic system List the functions of Thalamus and hypothalamus Discuss the functions of adrenal medulla in connection with sympathetic	Lecture	Knowledge	MCQ
	P(P)4	Estimate your body temperature	Practical	Knowledge,	OSPE



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		with the help of thermometer		Skill & Attitude	
AUTONOMIC NERVOUS SYSTEM	CNS-A21-22(Gn2-3)	<ul style="list-style-type: none"> Classify Autonomic nervous system Differentiate the components of sympathetic & parasympathetic system and their function. 	Lecture	K	MCQ
	P19	Differentiate between sympathetic and parasympathetic nervous system on the basis of origin, neurotransmitters involved, types of receptors and functions	Lecture	Knowledge & Attitude	MCQ
CSF	P20	Explain the Formation and functions of CSF	Lecture	Knowledge	MCQ
		Explain the circulation and absorption of CSF		Knowledge	MCQ
		Describe CSF pressure and its regulation		Knowledge	MCQ
	P(P)3	Record your own body temperature	Practical	Knowledge, Skill & Attitude	MCQ / OSPE
CEREBRUM	CNS-A23-24(NA17-18)	<ul style="list-style-type: none"> Identify the main Sulci and Gyri; and functional cortical areas. Relate the functional areas with their vascular supply. Define the types of white fibers. 	Lecture / Tutorial Lecture	Knowledge, Skill & Attitude	MCQ / OSPE
	CNS-A(P3)	Explain the microscopic features of cerebrum	Practical	KSA	MCQ / OSPE
Blood Supply Of Brain And Spinal Cord	CNS-A25-26(NA19-20)	<ul style="list-style-type: none"> List the branches of internal carotid artery, vertebral artery & Basilar artery. Describe location and formation of Circle of Willis. Outline the course of internal carotid & vertebral arteries. Demarcate the area of supply of the 3 cerebral arteries. Describe the origin & area of supply of Spinal arteries. Discuss the deficit caused by occlusion of cerebral arteries and spinal arteries. 	Lecture/ Tutorial	Knowledge	MCQ / OSPE
Dural Venous Sinuses	CNS-A27(NA21)	<ul style="list-style-type: none"> List Paired & Unpaired sinuses. Discuss their association with dural folds and bones of cranial cavity. Describe the location and contents of Cavernous sinus and its communication with veins of orbit & face. 	Lecture	KSA	MCQ / OSPE
Imaging Of Brain And Spinal Cord	CNS-A28(NA22)	<ul style="list-style-type: none"> Identify normal radiological anatomy of brain and spinal cord. 	Lecture	KSA	MCQ / OSPE
Neurotransmitters	B1	Explain the chemistry, biosynthesis,	Lecture	Knowledge	MCQ/OSPE



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		mechanism of action & metabolic role of neurotransmitters.			
Repair & regeneration	O1+O2	Differentiate between repair and regeneration	Lecture/ Tutorial	Knowledge	MCQ / OSPE
		Discuss the Steps Of Healing		Knowledge	MCQ / OSPE
		Define Hemostasis		Knowledge	MCQ / OSPE
		Explain Inflammatory Cell Activation, Migration, And Function		Knowledge	MCQ / OSPE
		Describe Reparative Phase		Knowledge	MCQ / OSPE
		Enumerate Wound Contraction And Scarring		Knowledge	MCQ / OSPE
		Discuss the steps of Repair Following Tooth Extraction		Knowledge	MCQ / OSPE
		Discuss Wound Healing At the Dentine-Enamel Junction		Knowledge	MCQ / OSPE
		Summarize the Repair Of Enamel.		Knowledge	MCQ / OSPE
Dental Caries	O3	Define active and arrested caries	Lecture/ Tutorial	Knowledge	MCQ / OSPE
		Discuss Repair Of The Dentin – Pulp Complex		Knowledge	MCQ / OSPE
		Describe dental caries.		Knowledge	MCQ / OSPE
		Enumerate zones of caries		Knowledge	MCQ / OSPE
Mandibular 1st Molar	T1	Enumerate the buccal, lingual, mesial, distal aspect of mandibular first molar	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	T2	Enumerate occlusal aspects of mandibular first molar		Knowledge	MCQ / OSPE
Mandibular 2nd Molar & 3rd	T3	Enumerate the buccal, lingual, mesial, distal, and occlusal aspects of mandibular second molar		Knowledge	MCQ / OSPE
	T4	Differentiate between 1st, 2nd and 3rd mandibular molars on the basis of their morphology		Knowledge	MCQ / OSPE
Genetics	B2	Describe chemical structure of nucleoproteins	Lecture/ Tutorial	Knowledge	MCQ/OSPE
		Explain the significance of nucleoproteins		Knowledge	MCQ/OSPE
	B3	Describe the chemical structure, properties & functions of DNA & RNA,	Lecture/ Tutorial	Knowledge	MCQ/OSPE
	B4	Discuss the central dogma of molecular biology (Replication)	Lecture/ Tutorial	Knowledge	MCQ/OSPE
	B5	Discuss the central dogma of molecular biology (Transcription)	Lecture/ Tutorial	Knowledge	MCQ/OSPE
	B6	Discuss the central dogma of molecular biology (Translation)	Lecture/ Tutorial	Knowledge	MCQ/OSPE



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CONTENT				
SPECIAL SENSES MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	Gross Anatomy	02	01 Week	Lecture/ Tutorial
PHYSIOLOGY	Lecture	08		Lecture/ Tutorial
	Practical	05		Practical
BIOCHEMISTRY	Lectures	01		Lecture/ Tutorial
	Practical	00		Practical
ORAL BIOLOGY	Oral Biology	00		Lecture
	Tooth Morphology	04		Lecture
Total		20		





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Topic	Lecture	Special Senses - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Gross anatomy of eye	SSM-A1(Gr1)	<ul style="list-style-type: none"> Identify the 3 coats and the components of each coat. Describe the contents of eyeball 	Lecture/ Tutorial	Knowledge	MCQ / OSPE
Physics of Image formation	P1	Explain refraction and refractory structure of eye along with the physics of refraction involve in the eye Discuss the fluid system of eye	Lecture	Knowledge, Skill & Attitude Knowledge	MCQ MCQ
Photoreceptors, phototransduction & Color Vision	P2 + 3	Discuss the error of refraction and their connections	Lecture	Knowledge, Skill & Attitude	MCQ / OSPE
		Explain the accommodation		Knowledge	MCQ
		Explain the types and mechanism of stimulation of photoreceptors, photo transduction.		Knowledge	MCQ
		Discuss the anatomy & function of the structural elements of the retina		Knowledge	MCQ
		Discuss the photochemistry of vision (light and dark adaptation)		Knowledge	MCQ
		Discuss the process of color vision		Knowledge, Skill & Attitude	MCQ / OSPE
		Discuss the neural function of the retina		Knowledge	MCQ
		Explain in detail visual pathway along with its lesions.		Knowledge, Skill & Attitude	MCQ / OSPE / google classroom assignment
		Describe formation of image on retina and further processing on visual cortex.		Knowledge, Skill & Attitude	MCQ / OSPE
		Define the terms: light and dark adaptations, cataract		Knowledge	MCQ
	P(P)1	Demonstrate field of vision by Perimetry	Practical	Knowledge, Skill & Attitude	MCQ / OSPE
	P(P)2	Record Visual Acuity of a subject by Snellen's Chart	Practical	Knowledge, Skill & Attitude	MCQ / OSPE
	P(P)3	Demonstrate color vision by Ishihara Chart	Practical	Knowledge, Skill & Attitude	MCQ / OSPE
Vitamin	B1	Explain the functions, sources & clinical abnormalities of Vitamin A,	Lecture	Knowledge	MCQ/OSPE
Anatomy of Ear	SSM-A2 (Gr2)	<ul style="list-style-type: none"> Describe the division of ear. Discuss the gross features & nerve 	Lecture	Knowledge	MCQ / OSPE



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		supply of external ear. • Identify the boundaries and relations of middle ear. • List the contents of middle ear.			
Hearing	P4 +5	Explain the physiological anatomy of ear.	Lecture	Knowledge	MCQ
		Explain the role of ossicles in the process of hearing.		Knowledge	MCQ
		Describe how frequency, loudness and direction of sound are perceived		Knowledge	MCQ
		How sound waves are conducted from tympanic membrane to basilar membrane.		Knowledge	MCQ/ Google classroom assignment
Auditory Pathway		Describe the auditory pathway and various types of deafness with their causes. (conductive and perceptive deafness)		Knowledge, Skill & Attitude	MCQ / OSPE
				Knowledge, Skill & Attitude	MCQ / OSPE
Equilibrium	P6	Describe how the vestibular apparatus functions to monitor equilibrium	Lecture	Knowledge, Skill & Attitude	MCQ / OSPE
	P(P)4	Demonstrate different hearing tests using tuning Forks	Practical	Knowledge, Skill & Attitude	MCQ / OSPE
Olfactory & taste Pathway/ Gustation	P7	Describe the structure and function of olfactory Membrane receptors in relation to olfactory pathway	Lecture	Knowledge	MCQ
		Discuss the abnormalities of smell	Lecture	Knowledge & Skill	MCQ / OSPE
	P8	Describe the structure & function of taste buds and taste Pathway Discuss the types of taste buds, locations activation and their perception on tongue Explain taste pathway		Knowledge Knowledge & Skill Knowledge Knowledge, Skill & Attitude	MCQ MCQ / OSPE MCQ MCQ / OSPE
Maxillary molars	P(P)5	Detect different taste & smell sensations.	Practical		
	T1	Enumerate the buccal, palatal, proximal aspects of maxillary 1st molar	Lecture/ Tutorial	Knowledge	MCQ / OSPE
	T2	Enumerate occlusal aspects of maxillary 1st molar		Knowledge	MCQ / OSPE
	T3	Enumerate the buccal, palatal, proximal and occlusal aspects of maxillary 2nd molar		Knowledge	MCQ / OSPE
	T4	Differentiate between maxillary 1st, 2nd and 3rd molars on the basis of their morphology		Knowledge	MCQ / OSPE



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CONTENT				
KIDNEY AND BODY FLUIDS MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	Gross Anatomy	01	02 Weeks	Lecture/ Tutorial
	Histology	01		Lecture/Tut orial
	Practical	01		Practical
PHYSIOLOGY	Lecture	11		Lecture/ Tutorial
BIOCHEMISTRY	Lectures	03		Lecture/ Tutorial
	Practical	04		Practical
ORAL BIOLOGY	Oral Biology	02		Lecture
	Tooth Morphology	06		Lecture
Total		29		



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Topic	Lecture	Kidney & Body Fluids Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Gross Anatomy of Kidney	K&BF-A1(Gr1)	<ul style="list-style-type: none"> Describe the gross features of Kidney Discuss the blood supply & venous drainage of Kidney 	Lecture	KSA	MCQ / OSPE
Nephron	K&BF-A2(H1)	<ul style="list-style-type: none"> Describe the shape and structure of nephron Distinguish different parts of nephron 	Lecture	KSA	MCQ / OSPE
	K&BF-A(P1)	<ul style="list-style-type: none"> Recognize the cells of nephron under the microscope Distinguish different parts of nephron under the microscope 	Practical	KSA	MCQ / OSPE
Introduction	P1	List the functions of kidney	Lecture	Knowledge	MCQ
		Explain the structure and functions of Nephron with their types		Knowledge	MCQ
Urine formation & GFR	P2	Discuss the processes involved in urine formation	Lecture/ Tutorial	Knowledge & Attitude	MCQ / OSPE
		Define GFR and its value		Knowledge	MCQ/ google classroom assignment
		Describe the glomerular filtration membrane and how it excludes blood cells and proteins from the filtrate.		Knowledge	MCQ
		Elaborate the dynamics of Glomerular filtration.		Knowledge	MCQ / OSPE
		Explain the forces that promote and oppose glomerular filtration.		Knowledge	MCQ
		Calculate net filtration pressure.		Knowledge & Skill	MCQ
Regulation of GFR	P3	Describe Auto-regulation of GFR	Lecture	Knowledge	MCQ
		Give its significance.		Knowledge	MCQ
		Describe how the nervous system and hormones regulate glomerular filtration (factors affecting GFR)		Knowledge	MCQ
Tubular Reabsorption	P4	Discuss the passive and active mechanism of transport for tubular reabsorption	Lecture	Knowledge & Attitude	MCQ / OSPE
		Discuss tubular reabsorption along different parts of the nephron and its regulation		Knowledge & Attitude	MCQ / OSPE
		Define tubular load and Tubular transport maximum (Tm).		Knowledge	MCQ/ google classroom assignment
		Discuss the reabsorption of fluid by		Knowledge &	MCQ



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		peritubular capillaries.		Attitude	
Tubular Secretion	P5	Discuss the tubular secretion processes	Lecture	Knowledge & Attitude	MCQ
		Discuss secretion in different parts of nephron		Knowledge & Attitude	MCQ / OSPE
Renal concentrating, diluting mechanism	P6	Discuss how osmotic gradient is established	Lecture	Knowledge & Attitude	MCQ
		Discuss the role of collecting ducts in the formation of concentrated urine. The Counter Current Mechanism.		Knowledge & Attitude	MCQ / OSPE/ quiz assign
		Discuss renal mechanisms for excreting diluted urine		Knowledge & Attitude	MCQ
		Discuss the role of antidiuretic hormone & osmoreceptors		Knowledge & Attitude	MCQ
Renal blood flow	P7	Describe the regulation of renal blood flow along with factors affecting it and Measurement.	Lecture	Knowledge	MCQ
					MCQ
Hormones and Kidney	P8	Discuss the effect of following hormones on kidney: ADH Aldosterone Angiotensin II ANP PTH	Flipped class room	Knowledge & Attitude	MCQ / OSPE
Micturition Reflex	P9	Explain bladder accommodation of wide range of urine volume Describe the neural reflex pathway that regulates emptying of bladder Describe Micturition reflex	Lecture	Knowledge Knowledge & Attitude Knowledge & Attitude	MCQ / OSPE
Acid Base balance	P10	Discuss the role of kidney in maintaining acid base balance	Lecture/t utorial	Knowledge, Skill & Attitude	MCQ MCQ MCQ
Water & Electrolyte Imbalance	P11	Explain Water & Electrolyte imbalance	Lecture	Knowledge	MCQ
Physiological tooth movement + eruption	O1	Physiological tooth movement and eruption, Discuss shedding of teeth.	Lecture/ Tutorial	Knowledge	MCQ
	O2	Explain orthodontic tooth movement.		Knowledge	
Nutrition & Balance Diet	B1	Discuss the biomedical importance of nutrition	Lecture/ Tutorial	Knowledge	Quiz / Google Assignment
	B2	Explain the importance of balanced diet Relate clinical abnormalities with diet imbalance	Lecture/ Tutorial	Knowledge	Quiz / OSPE, Assignment
	B(P)1	Identify normal constituents of urine in the given sample	Practical	Skill	OSPE / VIVA



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	B(P)2	Identify pathological constituents of urine (Glucose & Protein)	Practical	Skill	OSPE / VIVA
	B(P)3	Identify pathological constituents of urine (ketone bodies & bile salts)	Practical	Skill	OSPE / VIVA
	B(P)4	Identify pathological constituents of urine ((Blood & Bile Pigments)	Practical	Skill	OSPE / VIVA
Minerals	B3	Explain Sodium Potassium chloride metabolism	Lecture/ Tutorial	Knowledge	Assignment Google Classroom
Occlusion	T1	Explain normal occlusion in deciduous and permanent dentition	Lecture/ Tutorial	Knowledge	
				Knowledge	
	T2	Identify different types of malocclusion on simulation		Knowledge/ Skill	Quiz / Assignment
	T3	Identify the shape and number of canals in individual teeth		Knowledge	Quiz / VIVA/ Assignment
Pulp chambers and canals + dentoosseous structure	T4-5	Enumerate the blood vessels and nerves of tooth supporting structures	Lecture/ Tutorial	Knowledge	
Forensic odontology	T6	Forensic odontology			



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CONTENT				
ENDOCRINOLOGY MODULE				
Subject Name		TOTAL NO: OF LECTURES	WEEK PER MODULE	MODE OF TEACHING
ANATOMY	Lectures	03	02 Weeks	Lecture / Tutorial / SGD
	Practical	02		Practical
PHYSIOLOGY	Lecture	13		Lecture/ Tutorial
BIOCHEMISTRY	Lectures	01		Lecture/ Tutorial
Total		19		





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Topic	Lecture	Endocrinology - Learning Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Pituitary gland	EM-A1(Gr1)	<ul style="list-style-type: none"> Describe the location & division of gland. Differentiate the cells of pituitary according to staining. List the 2 sources from which the adenohypophysis and neurohypophysis develops. 	Lecture	KSA	MCQ / OSPE
	EM-A(P1)	Identify the histological features of pituitary gland under the microscope	Practical	KSA	MCQ / OSPE
Thyroid And Parathyroid Glands	EM-A2-3(Gr2-3)	<ul style="list-style-type: none"> Describe the location, extent, relation and vascular supply of both glands and clinical related to it. Describe origin & derivation of both glands. Discuss the anomalies of thyroid gland. 	Lecture	KSA	MCQ / OSPE
	EM-A(P2)	<ul style="list-style-type: none"> Identify the follicular arrangement and follicular cells in thyroid gland. Identify the anastomosing cord and chief and oxyphil cells in Parathyroid gland. 	Practical	KSA	MCQ / OSPE
Classification of hormones	P1	Discuss what are endocrine hormones	Lecture	Knowledge	MCQ
		Compare endocrine and exocrine glands		Knowledge& Skill	MCQ
		List the major endocrine glands and locate them in the body		Knowledge	MCQ
		Classify hormones		Knowledge	MCQ
		How is hormone secreted ,transported and cleared from the blood		Knowledge	MCQ
Mechanism of action of hormones	P2	Discuss hormone receptors and their activation	Lecture/t utorial	Knowledge& Attitude	MCQ
		Discuss intercellular signaling after receptor activation		Knowledge& Attitude	MCQ
		Discuss mechanism of actions of different hormones		Knowledge& Attitude	MCQ
Hypothalamo-hypophyseal system	P3	Describe the structural and functional relationships of the hypothalamus-pituitary unit	Lecture	Knowledge& Attitude	MCQ
		Describe the control, site of action and functions of the adenohypophysis hormones		Knowledge	MCQ / quiz
		Describe the relationship between the neurohypophysis and the hypothalamus		Knowledge& Attitude	MCQ / OSPE
		Describe the effects of hypo and		Knowledge	MCQ / OSPE



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		hyper secretions of these hormones			
Anterior pituitary hormones	P4	List the hormones secreted by anterior pituitary	Lecture	Knowledge& Attitude	MCQ / OSPE
		Discuss the synthesis and secretions & effects of these hormones		Knowledge	MCQ
		Discuss the effects of growth hormones & applied aspects		Knowledge	MCQ
Posterior pituitary hormones	P5	List the hormones secreted by posterior pituitary	Lecture	Knowledge& Attitude	MCQ / OSPE
		Discuss the synthesis and secretions of these hormones		Knowledge& Attitude	MCQ / OSPE
		Discuss the effects of these hormones & their disorders		Knowledge	MCQ
Thyroid hormones	P6+7	Describe the formation, secretion, function and regulation of thyroid hormones	Lecture/t utorial	Knowledge& Attitude	MCQ/ google classroom assignment
		Discuss disorders of thyroid hormones		Knowledge& Attitude	MCQ / OSPE
Pancreatic hormones	P8+ 9	Describe the mode of action of insulin release and its mechanism in target cells	Lecture	Knowledge& Attitude	MCQ
		Explain physiological functions of insulin		Knowledge, Skill & Attitude	MCQ / OSPE / google classroom assignment
		Explain functions of glucagon, somatostatin and pancreatic polypeptide		Knowledge& Skill	MCQ / OSPE
Calcium homeostasis	P 10+ 11	Name the hormones that regulate the calcium and phosphate homeostasis	Lecture	Knowledge, Skill & Attitude	MCQ / OSPE
		Explain functions of parathyroid hormone		Knowledge	MCQ
		Explain functions of vitamin D and calcitonin		Knowledge& Attitude	MCQ/ quiz assign
		Discuss hypocalcemia and hypercalcemia		Knowledge, Skill & Attitude	MCQ
Adrenal hormones 1	P 12	Describe the site of formation, function and control of secretion of mineralocorticoids	Lecture	Knowledge	MCQ
		Describe the site of formation, function and control of secretion of glucocorticoids		Knowledge	MCQ/ quiz assign
Adrenal hormones 2	P 13	Discuss Cushing syndrome, Cushing disease and Addison's disease	Lecture	Knowledge& Attitude	MCQ / OSPE
Introduction to Hormones	B1	Classify hormones	Lecture	Knowledge	MCQ/OSPE
		Discuss the mechanism of action of hormones		Knowledge	MCQ/OSPE



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RESEARCH				
Topic	Objectives	Learning Strategy	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
Importance of Research in Health Care Profession	<ul style="list-style-type: none"> Discuss the importance of research in health care provision Identify the problems related To health in the community 	Lecture	KSA	Summative Assignment
How to Formulate a Research Question	<ul style="list-style-type: none"> Formulate scientifically correct research questions 	Lecture	KSA	Summative Assignment
Hypothesis, its types and errors in hypothesis testing	<ul style="list-style-type: none"> Classify hypothesis Explain types of erosion hypothesis testing Discuss how the errors can be prevented 	Lecture	KSA	Summative Assignment
How to Perform Literature Search	<ul style="list-style-type: none"> Perform literature search by using Boolean Search 	Tutorial /Workshop	KSA	Summative Assignment
Writing background and rationale of the study	<ul style="list-style-type: none"> Write the background which should lead to the rationale for the study Writing and justification of the rationale of study 	Tutorial	KSA	Formative Group project
Writing the objectives, inclusion and exclusion criteria and operational definitions of the study	<ul style="list-style-type: none"> Discuss the importance of the research objective and operational definitions and it's writing Explain the inclusion and exclusion criteria's in methodology 	Lecture	KSA	Summative Assignment
Observational analytical study design; cross-sectional study	<ul style="list-style-type: none"> Discuss the importance of these research designs in health care provision Explain the methodology of these research designs 	Lecture	KSA	Formative Group project
Observational analytical study design: case control study and odds ratio	<ul style="list-style-type: none"> Discuss the importance of these research designs in health care provision Explain the methodology of these research designs 	Lecture	KSA	Formative Group project
Observational analytical study design; cohort study and relative risk	<ul style="list-style-type: none"> Discuss the importance of these research designs in health care provision Explain the methodology of these research designs 	Lecture	KSA	Formative Group project



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Experimental studies:	<ul style="list-style-type: none">• Discuss the importance of these research designs in health care provision• Explain the methodology of these research designs	Lecture	KSA	Formative Group Project
Experimental studies: Quasi experimental study	<ul style="list-style-type: none">• Discuss the importance of these research designs in health care provision	Lecture	KSA	Formative Group project
Estimating sample size	<ul style="list-style-type: none">• Calculate sample size based on prescribed guidelines• Justify sample size for their research project Demonstrate the use of Appropriate software for	Lecture	KSA	Formative Group project
Sampling Techniques	<ul style="list-style-type: none">• Classify sampling techniques• Appropriately choose sampling technique according to study design	Lecture	KSA	Formative Group project
Designing a questionnaire	<ul style="list-style-type: none">• Define purpose and scope of the questionnaire.• Identify relevant variables to be measured.• Select suitable question types (e.g., multiple-choice, Likert scale).• Construct clear, concise, and unambiguous questions.• Ensure validity and reliability of the questionnaire.	Lecture	KSA	Summative assignments research based



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COMMUNICATION SKILLS				
Topic	Objectives	Mode of Teaching	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
		Lecture/ Tutorials		
Presentation skills	• Define the principles of effective presentations	lecture/ Role Play	KSA	d
	• Describe Mayer's Principles of Multimedia Learning relevant to PowerPoint presentations and posters			





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PATIENT SAFETY				
Topic	Objectives	Mode of Teaching	KSA Competencies Knowledge/ Skill/ Attitude	Assessment Tools
		Lecture/ Lectures		
Optimizing fire safety protocols for safe patient evacuation	<ul style="list-style-type: none">Practice drills for evacuating patients safely in the event of fire, natural disasters, or other emergencies in the dental clinic	Practical	Knowledge, Skill & Attitude	Role Plays, Assignment
Proper hand hygiene in dentistry step by step demonstration	<ul style="list-style-type: none">Demonstrate hand hygiene technique	Practical	Knowledge & Skill	MCQ, Assignment, Role Play



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LEADERSHIP, PROFESSIONALISM & ETHICS (LeaPE)				
Topic	Objectives	Mode of Teaching	KSA Competencies	Assessment Tools
		Lecture/ Tutorials	Knowledge/ Skill/ Attitude	
LEADERSHIP				
Leadership theories & styles	<ul style="list-style-type: none">Explains the common leadership theories & styles	Lecture/ Small group discussion / role play	KSA	MCQs/OSPE
	<ul style="list-style-type: none">Identifies leadership style in oneself and one other person			
	<ul style="list-style-type: none">Discusses the advantages and challenges in using different leadership theories according to the situation			
	<ul style="list-style-type: none">Explain the major leadership theories (e.g., transformational, transactional, servant leadership, situational leadership).Identify different leadership styles and their characteristics.Analyze the advantages and limitations of each leadership style in different situations.Assess one's own leadership style and compare it with others.			
Leader vs manager	<ul style="list-style-type: none">Differentiate between leader and manager	Lecture /role play/ Small group discussion	KSA	MCQs/OSPE
	<ul style="list-style-type: none">Discuss factors affecting leadership			
	<ul style="list-style-type: none">Identify the difference between leadership and management.Identify the key roles and responsibilities of a leader and a manager.Discuss factors influencing leadership effectiveness.Apply leadership and management principles in dental practice.			
Working effectively in teams	<ul style="list-style-type: none">Define team	Lecture /role play/ Small group discussion	KSA	MCQs/OSPE
	<ul style="list-style-type: none">Discuss the functions and advantages of working in teams, with			
	<ul style="list-style-type: none">Define the concept of a team and teamwork.Explain the characteristics of effective teams.Discuss the functions, benefits, and challenges of working in teams.Apply teamwork strategies in a healthcare setting.			



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PROFESSIONALISM				
Professionalism: basic concepts	<ul style="list-style-type: none">Discuss the various definitions of professionalism	Lecture	KSA	MCQs/OSPE
	<ul style="list-style-type: none">Identify the similarities and differences in the definitions	Lecture	KSA	
	<ul style="list-style-type: none">Discuss the main components of professionalism	Lecture	KSA	
	<ul style="list-style-type: none">Define professionalism and its importance in dentistry.Identify similarities and differences in definitions of professionalism.Discuss the core components of professionalism (ethics, competence, communication, accountability, altruism).	Lecture /role play/ Small group discussion	KSA	
BIOETHICS				
Introduction to Professionalism & Medical Ethics	<ul style="list-style-type: none">Define Professionalism and its various components	Lecture /role play/ Small group discussion	KSA	MCQs
	<ul style="list-style-type: none">Differentiate among Ethics, Bio-ethics and Medical ethics		KSA	
	<ul style="list-style-type: none">Define the duties of doctor as advised by the international code of medical ethics		KSA	
	<ul style="list-style-type: none">Explain the principles of bio-ethics & medical ethics		KSA	
	<ul style="list-style-type: none">Discuss the development of medical ethics in the perspective of the different ethical codes and declarations developed over time	KSA	MCQs	
	<ul style="list-style-type: none">Define medical ethics, bioethics, and professionalism in dentistry.Differentiate between ethics, bioethics, and medical ethics.Explain the duties of a dentist as outlined by international ethical codes.Discuss the principles of bioethics (autonomy, beneficence, non-maleficence, justice).Analyze historical developments in medical ethics.	Lecture /Small group discussion	KSA	MCQs
Common Terminologies	<ul style="list-style-type: none">Define dilemma, diversity, tolerance and pluralism, integrity with strong moral compasses like Truth telling, honesty, and respect	Lecture /role play/ Small group discussion	KSA	MCQs/OSPE
	<ul style="list-style-type: none">Define key ethical terms: dilemma, diversity, tolerance, pluralism, integrity.Explain moral principles such as truth-telling, honesty, and respect.Apply ethical terminology to real-world scenarios in dentistry.			



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GUIDE TO CLINICAL SKILL LAB (COD)

Introduction	<p>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.</p> <p>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.</p>
<div><div>Knowledge</div><div>Skills</div><div>Attitude</div><div>Responsiveness</div><div>Communication</div></div>	
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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Information shall be forwarded to all students regarding respective skill session a week prior through timetable.



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Students	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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)



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PROFESSIONAL DEVELOPMENT CELL (SKILL LAB)				
Competencies	Learning Objectives	Teaching & learning Activities	Assessment tools	Outcomes
Hand Washing	At the end of the session student of first year BDS, should be able to: Practice hand washing according to WHO guidelines.	Video, PPT, Practical demonstration followed by hands on session.	Mini CEX, OSATS DOPS OSPE	By the end of the training program, students of First year BDS should be able to : Practice hand washing following WHO guidelines.
Vital Signs	At the end of the session student of first year BDS, should be able to: Differentiate between normal and abnormal readings of vital signs. Examine all vital signs with empathy.	Video, Practical demonstration on simulated patient followed by hands on session.		Record all vital signs in professional manner.
First Aid Introduction	At the end of the session student of first year BDS, should be able to: Analyze the conditions which needs first aid provision. Interpret, the steps of first aid.	Power point , video		Provide first aid with minimal complications
Oral cavity Examination	At the end of the session student of first year BDS, should be able to: Identify the normal structures of the oral cavity. Examine the oral cavity. Order the dentition according to universal scale.	Practical demonstration followed by self-practice on Simulated patient.		Conduct Oral cavity examination Construct their answers in OSPE format



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



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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



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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.



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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.



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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 INTERMEDIATE 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



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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



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4. STAGE 4- REFERRAL 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 means deemed 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



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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.



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- 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 prejudicial 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



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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:

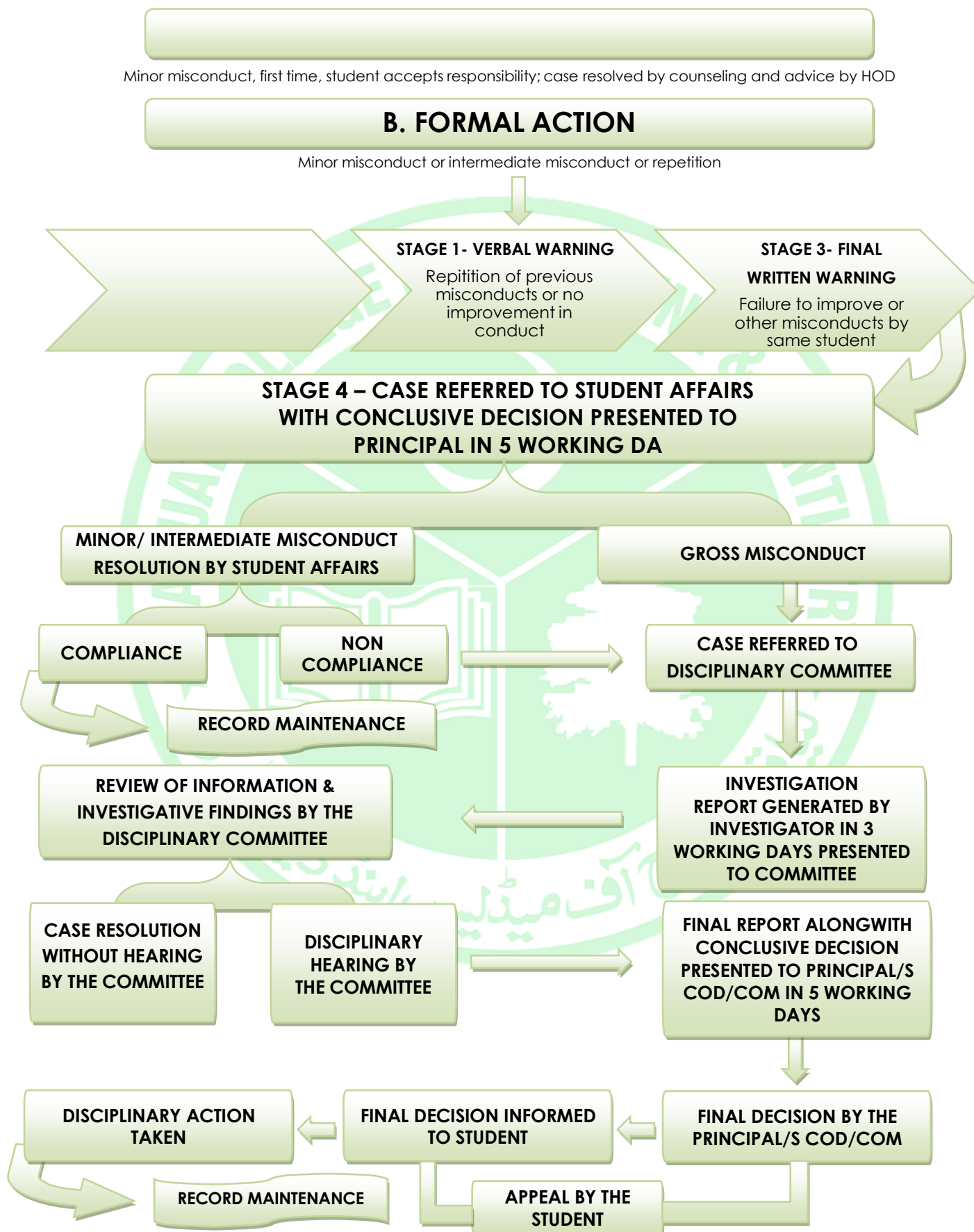
- Verbal abuse or intimidation to the level that is highly objectionable,
- Ragging and/or bullying
- Violent behavior or that causing physical harm
- Sexual harassment
- Serious negligence which causes unacceptable loss, damage or injury
- Serious violation of health and safety rules jeopardizing the 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



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





RECOMMENDED BOOKS

GENERAL ANATOMY

- Clinically Oriented Anatomy By K.L.Moore.
- Hand Book Of General Anatomy By B.D. Chaurasia

GROSS ANATOMY

- Atlas Of Human Anatomy (Netter's)
- Clinical Anatomy By Richard S. Snell
- Gray's Anatomy For Students
- Human Anatomy, Regional & Applied By B.D Chaurasia (Vol. III)

NEUROANATOMY

- Snell's Clinical Neuroanatomy
- Human Anatomy, Regional & Applied By B.D Chaurasia (Vol. IV)

HISTOLOGY

- Wheater's Functional Histology.
- Coloured Atlas Of Histology By Difiore's

EMBRYOLOGY

- Langman's Embryology/ Clinically Oriented
- Development Anatomy By K.L.Moore

PHYSIOLOGY

- Text book of Medical physiology by Arthur C. Guyton.
- Review of Medical physiology by Ganong.
- Textbook of Medical Physiology by Indu Khurana.
- Essentials of Medical Physiology by Sembulingam, JP Publishers
- Human Physiology by Lauralee Sherwood

ORAL BIOLOGY

- Ten Cate's Oral Histology
- Wheeler's Dental Anatomy Physiology and Occlusion
- Berkowitz

BIOCHEMISTRY

- Harper's illustrated Biochemistry 28th Edition.
- Biochemistry by Lippincott.
- Text Book of Medical Biochemistry by Chattarjee .
- Medical Biochemistry by Mushtaq.
- Biochemistry by U.Satyanarayana



EXAMINATION



Continuous Assessment:

This will include:

1. Term I
2. Term II
3. Term III
4. 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		
Foundation Module Exam	50	-	-	-	
NMS Module Exam	50	-	-	-	
Blood Module Exam	50	-	-	-	
Midterm (MCQs + OSPE)					
<i>Anatomy</i>	<i>Physiology</i>	<i>Biochemistry</i>	<i>Oral Biology</i>	<i>Research</i>	<i>Islamiat</i>
50+ 50	50+ 50	50+ 50	50+ 50	50 + 0	100 + 0
OSPE paper will consist of 3 observed stations (5 marks each) & 7 unobserved stations (05 marks each)					
Respiratory Module Exam	50	-	-	-	
GIT Module Exam	50	-	-	-	
CNS Module Exam	50	-	-	-	
Special Senses & Kidney Body Fluids Module Exam	50	-	-	-	
Pre-Prof. Exam (MCQs + OSPE + Internal Evaluation)					
<i>Anatomy</i>	<i>Physiology</i>	<i>Biochemistry</i>	<i>Oral Biology</i>	<i>Research</i>	<i>Islamiat</i>
90 + 90 +20	90 + 90 +20	40 + 40 +20	90 + 90 +20	80 + 0 +20	80 + 0 +20
OSPE paper will consist of 4 observed stations (5 marks each) & 10 unobserved stations (10 marks each)					



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**MARKS DISTRIBUTION ACCORDING
TO
JINNAH SINDH MEDICAL UNIVERSITY**

SUBJECT	THEORY EXAM (ONE BEST ANSWER)	PRACTICAL EXAM (OSPE)	INTERNAL EVALUATION/ CONTINUOUS ASSESSMENT	TOTAL MARKS
ANATOMY	90	90	20	200
PHYSIOLOGY	90	90	20	200
BIOCHEMISTRY	40	40	20	100
ORAL BIOLOGY	90	90	20	200
ISLAMIAT	80	-	20	100
GRAND TOTAL				800



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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 / ShalwarKameez
- ❖ Shirt tucked in pant
- ❖ Only Shoes no chappals 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



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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.