AVICENNA MEDICAL & DENTAL COLLEGE

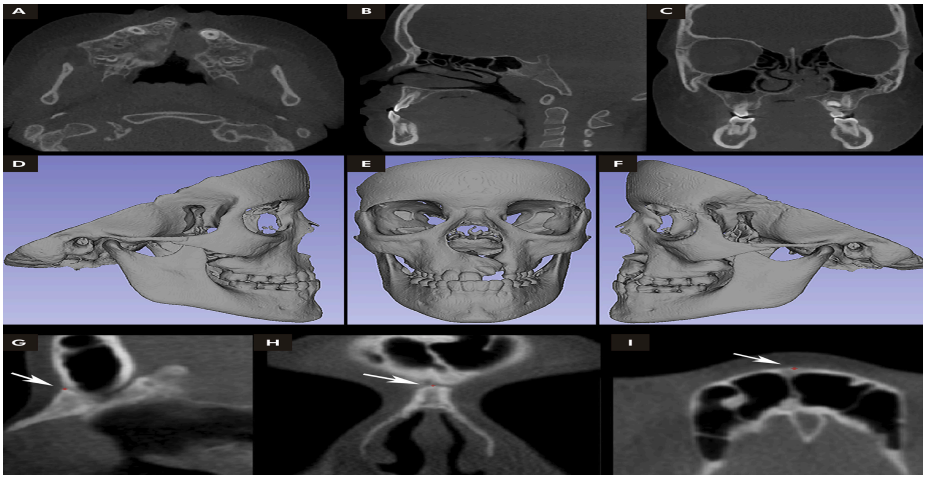
AVICENNA
DENTAL COLLEGE

STUDY GUIDE

2025

Craniofacial 2

BLOCK 2 - MODULE 4



Program: BDS
Year: 1st Professional Year
Batch No: D-24
Session: 2024-2025

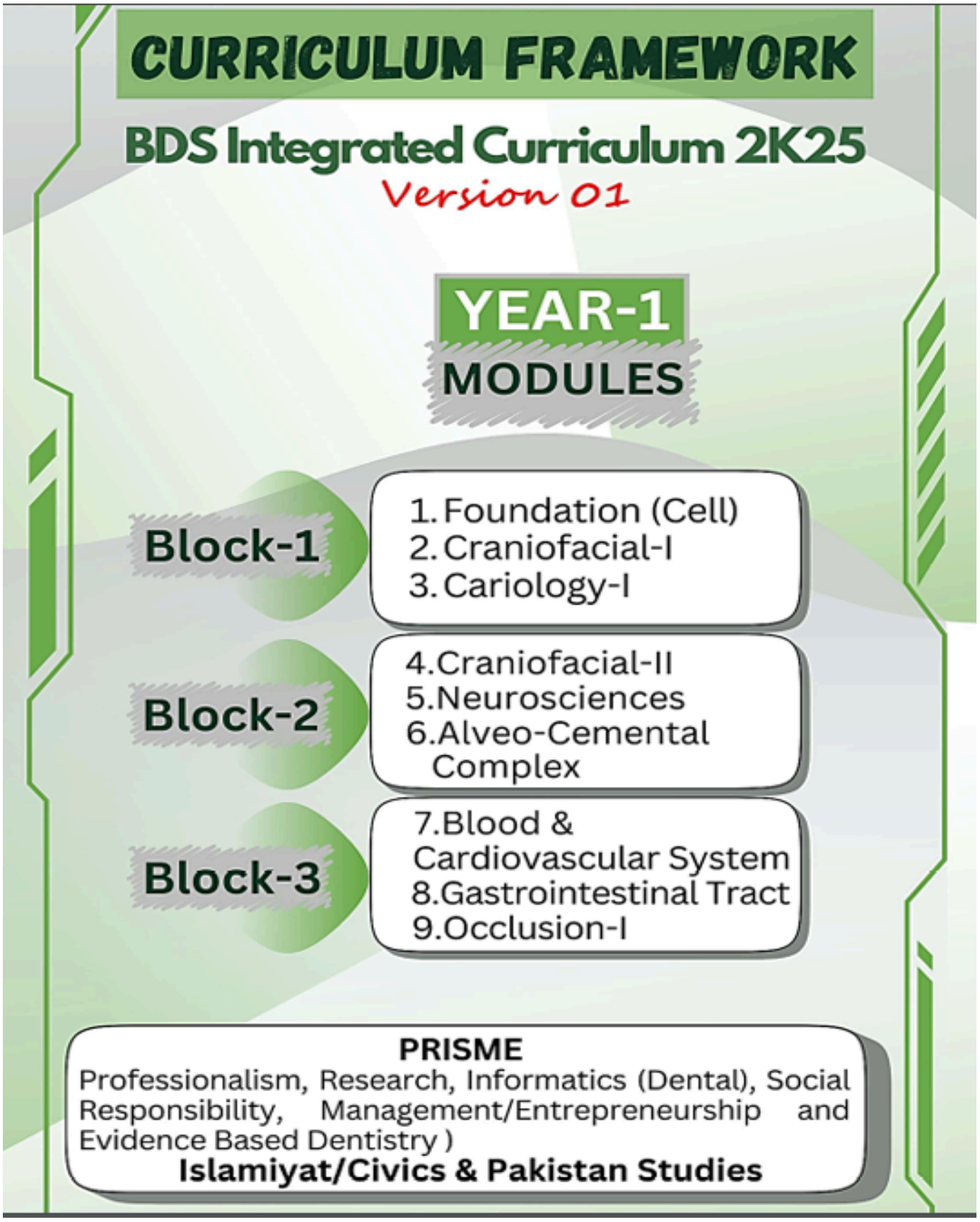
Table of Contents

List of Abbreviations

Abbreviations	Subjects
UHS	University of Health Sciences
BDS	Bachelor of Dental Surgery
PRISME	Professionalism, Research, Informatics, Social Responsibility and Accountability, Management & Entrepreneurship, Ethics Evidence Based Dentistry
WHO	World Health Organization
A	Anatomy
AI	Artificial Intelligence
B	Biochemistry
GDC	General Dental Council
Ph	Pharmacology
P	Physiology
Pa	Pathology
OB	Oral Biology
OP	Oral Pathology
CD	Community Dentistry
OD	Operative Dentistry
AMIA	American Medical Informatics Association
AMEE	Association of Medical Education in Europe
BhS	Behavioral Sciences
CNS	Central Nervous System
GIT	Gastrointestinal Tract
CVS	Cardiovascular System
TMJ	Temporomandibular Joint
CBC	Complete Blood Count
ESR	Erythrocyte Sedimentation Rate
PCR	Polymerase Chain Reaction
ED50	Median Effective Dose
LD50	Median Lethal Dose

TD50	Median Toxic Dose
AUC	Area Under Curve
MCV	Mean Corpuscular Volume
MCH	Mean Corpuscular Hemoglobin
MCHC	Mean Corpuscular Hemoglobin Concentration
Na	Sodium
K	Potassium
DNA	Deoxyribonucleic Acid
TORCH	Toxoplasmosis, Other, Rubella, Cytomegalovirus, Herpes simplex
CF	Craniofacial
CFII	Craniofacial II
Car	Cariology
DEJ	Dentin enamel Junction
HERS	Hertwig's Epithelial Root Sheath
FDI	Fédération Dentaire Internationale
GAGs	Glycosaminoglycans
EFA	Essential Fatty Acids
Hb	Hemoglobin
HbA1c	Glycated Hemoglobin
ATP	Adenosine Triphosphate
RBC	Red Blood Cell
NMJ	Neuromuscular Junction
ID50	Median Infectious Dose
RCTs	Randomized Control Trials

Curriculum Framework



Introduction to the Study Guide

Welcome to the Avicenna Dental College Study Guide!

This guide serves as your essential resource for navigating the complexities of your dental education at Avicenna Dental College. It integrates comprehensive details on institutional framework, curriculum, assessment methods, policies, and resources, all meticulously aligned with UHS, PMDC and HEC guidelines.

Each subject-specific study guide is crafted through a collaborative effort between the Department of Medical Education and the respective subject departments, ensuring a harmonized and in-depth learning experience tailored to your academic and professional growth.

Objectives of the Study Guide

1. **Institutional Understanding:**
    - Gain insight into the college's organizational structure, vision, mission, and graduation competencies as defined by PMDC, setting the foundation for your educational journey.
2. **Effective Utilization:**
    - Master the use of this guide to enhance your learning, understanding the collaborative role of the Department of Medical Education and your subject departments, in line with PMDC standards.
3. **Subject Insight:**
    - Obtain a comprehensive overview of your courses, including detailed subject outlines, objectives, and departmental structures, to streamline your academic planning.
4. **Curriculum Framework:**
    - Explore the curriculum framework, academic calendar, and schedules for clinical and community rotations, adhering to the structured guidelines of UHS & PMDC.
5. **Assessment Preparation:**
    - Familiarize yourself with the various assessment tools and methods, including internal exam and external exam criteria, and review sample papers to effectively prepare for professional exams.
6. **Policies and Compliance:**
    - Understand the institutional code of conduct, attendance and assessment policies, and other regulations to ensure adherence to college standards and accrediting body requirements.
7. **Learning Resources:**
    - Utilize the learning methodologies, infrastructure resources, and Learning Management System to maximize your educational experience and academic success.

This guide, meticulously developed in collaboration with your subject departments, is designed to support your academic journey and help you achieve excellence in accordance with the highest standards set by PMDC and HEC.

Introduction to Module

- Craniofacial-II synthesizes gross anatomy of the skull, scalp, face, orbit, mandible, cranial fossae, and paranasal sinuses with the physiology and pharmacology of nerve and muscle function.
- Emphasis on extracranial landmarks and surface markings of cranial nerves, vascular structures, and the temporomandibular joint enables students to correlate structural knowledge with clinical procedures such as local anesthesia administration, TMJ disorder assessment, and minor oral–maxillofacial surgery.
- By integrating anatomy, physiology, biochemistry and pharmacology, learners will develop the foundational competencies required for accurate diagnosis, treatment planning, and procedural execution in dentistry.

Block 1			Block 2			Block 3			Spirals			
Module 1	Module 2	Module 3	Modue 4	Module 5	Module 6	Module 7	Module 8	Module 9	Module A	Module B	Module C	Module D
Foundation (Cell)	Craniofacial I	Cariology I	Craniofacial II	Neurosciences I	Alveoecmental complex	Blood & Cardiovascular System	Gastrointestinal Tract	Occlusion I	Islamiat	Pakistan Studies	PRISME	Holy Quran
190 Hours	95 Hours	72 Hours	111 Hours	154 Hours	48 Hours	153 Hours	115 Hours	34 Hours	30 Hours	30 Hours	60 Hours	54 Hours
6 Weeks	3 Weeks	3 Weeks	4 Weeks	6 Weeks	2 Weeks	5 Weeks	4 Weeks	2 Weeks	Contact sessions held across the whole academic year			
12 Weeks			12 Weeks			12 Weeks						
36 Weeks												

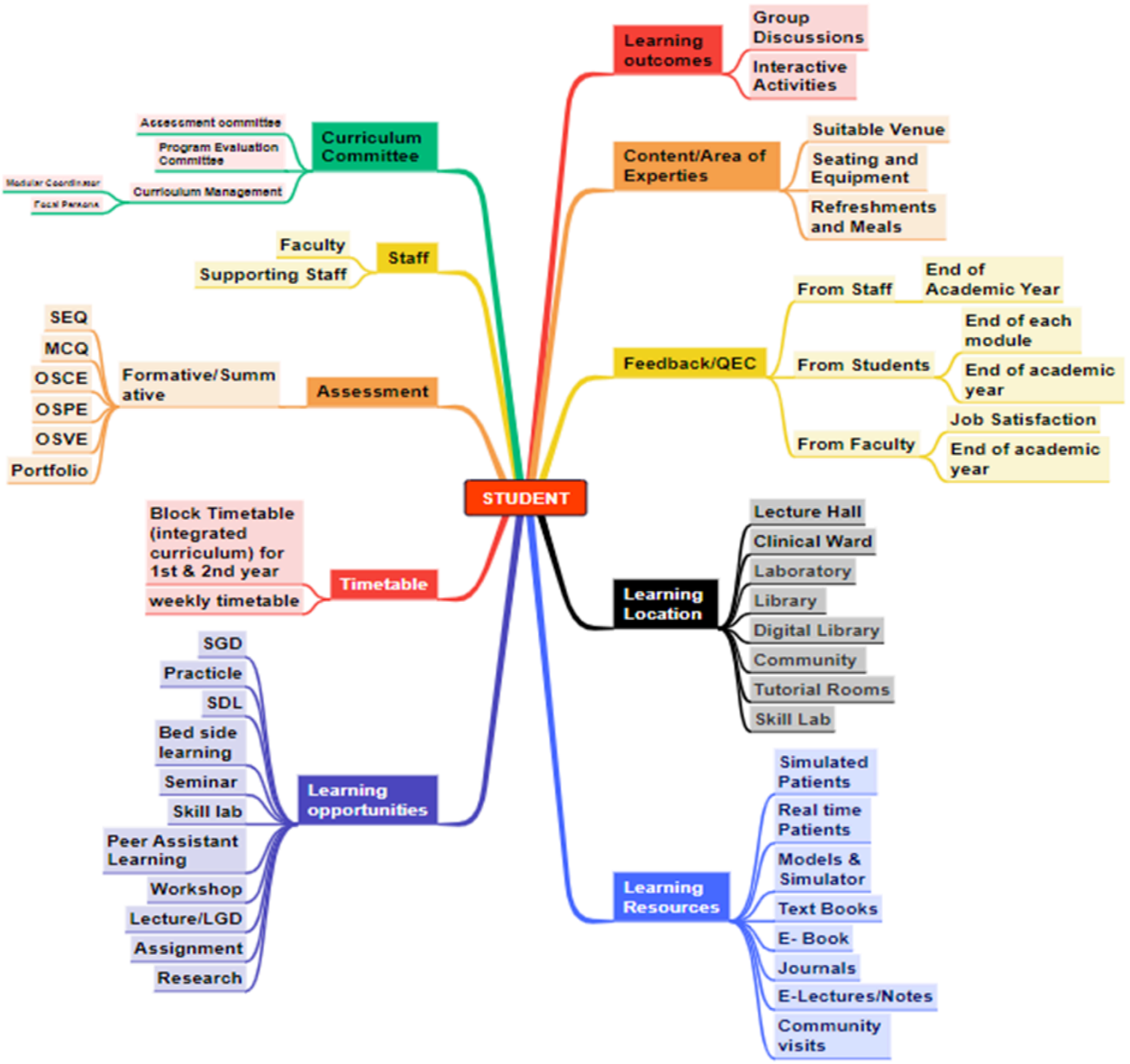
Module Committee

BLOCK 2 – MODULE 4

Module Coordinator		
Anatomy - Prof. Dr. Nahid		
Module Committee Members		
1	**Oral Biology & Tooth Morphology**	Dr. Sana Chaudhry
2	**Anatomy**	Dr. Kanwal Khalid
3	**Biochemistry**	Dr. Sadia Khalil
4	**General Pathology & Microbiology**	Dr Ishrat
5	**Pharmacology**	Dr Rubina Iqbal
6	**Physiology**	Dr. Syedda Amina Rizvi

Curriculum Map

This pictorial, vertical and horizontal presentation of the course content and extent shows the sequence in which various systems are to be covered. Curricular map to cover all the subjects and modules and the time allocated to study of the systems for the undergraduate programs offered at four colleges at campus are as follows:



Timetable

Module 4 - Timetable

BDS 1st Year - D24

Week - 13
7th July 2025 to 11th July 2025

Day & Time	8:00 to 9:00	9:00 to 10:00	10:00 to 11:00	11:00 to 11:30	11:30 to 12:30	12:30 to 1:30	1:30 to 2:30	2:30 to 3:30
Monday 7th July 2025	Anatomy (Theory) Code: CFII-A 001 Topic: Skull Facilitator: Dr. Kanwal Dental Lecture Hall - 1	Physiology (Theory) Code: CFII-P-002 Topic: Myelinated and Unmyelinated Nerve Fivers Facilitator: Dr. Tooba Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Dr Yusra Leghari Dental Lecture Hall - 1	Break	Anatomy (Theory) Code: CFII-OB002 Topic: Scalp Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-001 Topic: Energy production in Muscles Facilitator: Prof. Dr Haroon Habib Dental Lecture Hall - 1	Anatomy (Practical) Code: CFII-A- 001 Topic: Skull Facilitator: Dr. Kanwal / Dr. Sarwat Anatomy Tutorial Room	Oral Biology (Practical) Code: CFII-OB-005 Topic: Bone Facilitator: Dr. Anushey / Dr Faseeh Departmental Lab
						The British School of Excellence Only Batch 8 to attend student session by Ms. Maria Venue: Room 1 from 12:30 to 3:30 PM		
Tuesday 8th July 2025	Oral Biology (Theory) Code: CFII-OB-002 Topic: Temporomandibular Joint Facilitator: Prof. Dr. Raheela Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A 003 Topic: Face Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	Physiology (Theory) Code: CFII-P-002 Topic: Myelinated and Unmyelinated Nerve Fivers Facilitator: Dr. Nida Dental Lecture Hall - 1	Break	PRISME (Dental Education) Topic: Portfolio Development Facilitator: Dr. Salar Arsalan Dental Lecture Hall - 1	General Pathology & Microbiology (Theory) Code: CFII-MIC-002 Topic: Pathogenicty of microorganism Facilitator: Dr Hina Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A 001 Topic: Skull Facilitator: Dr. Kanwal / Dr. Sarwat Anatomy Tutorial Room	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Prof. Dr Haroon Habib Dental Lecture Hall - 1
						The British School of Excellence Only Batch 9 to attend student session by Ms. Maria Venue: Room 1 from 12:30 to 3:30 PM		
Wednesday 9th July 2025	Physiology (Theory) Code: CFII-P-003 Topic: Membrane Potential Facilitator: Dr. Hafsa Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-001 Topic: Bone Facilitator: Prof. Dr. Sana Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-OB001 Topic: Bone Facilitator: Dr. Kanwal Dental Lecture Hall - 1	Break	Physiology (Theory) Code: CFII-P-004 Topic: Resting Membrane Potentia Facilitator: Dr Amna Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-001 Topic: Bone Facilitator: Integrated with Anatomy Dr. Kanwal Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Dr Yusra Leghari Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A010 Topic: Skull Facilitator: Dr. Sarwat Dental Lecture Hall - 1
Thursday 10th July 2025	Biochemistry (Theory) Code: CFII-B-002 Topic: Energy production in Muscles Facilitator: Prof. Dr Haroon Habib Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A 001 Topic: Skull Facilitator: Dr. Kanwal Dental Lecture Hall - 1	Oral Biology (Theory) Code:CFII-OB-003 Topic: Muscle Contraction Facilitator: Prof. Dr. Sadia Integrated with Physiology Dental Lecture Hall - 1	Break	Anatomy (Theory) Code: CFII-A 001 Topic: Skull Facilitator: Dr. Kanwal / Dr. Sarwat Anatomy Tutorial Room	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Dr Yusra Leghari Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-002 Topic: Temporomandibular Joint Facilitator: Prof. Dr. Raheela Dental Lecture Hall - 1	Anatomy (Practical) Code: Topic: Temporal, Infratemporal and Pterygopalatine fossa Facilitator: Dr. Sarwat Department Lab
Day & Time	8:00-9:00	9:00-10:00	10:00-11:00	11:00-12:00	12:00-1:00	1.00-2:00	2:00-3:30	
Friday 11th July 2025	General Pathology & Microbiology (Theory) Code: CFII-MIC-001 Topic: Culture Media Facilitator: Dr Majid Dental Lecture Hall - 1	Pharmacology (Theory) Code: CFII-Ph001 Topic: ANS Neuromuscular blockers Facilitator: Dr. Rubina Iqbal Dental Lecture Hall - 1	Oral Biology (Practical) Code: CFII-OB-005 Topic: Bone Facilitator: Dr Anushey / Dr Faseeh Dental Lecture Hall - 1	Physiology (Theory) Code: CFII-P-001 Topic: Membrane Potential and Action Potentials (Anatomy) Facilitator: Integrated with Anatomy Dr Kanwal Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Dr Yusra Leghari Dental Lecture Hall - 1	Jummah Break	Holy Quran (Theory) Topic: Oneness of Allah Facilitator: Miss. Amna Dental Lecture Hall - 1	

Module 4 - Timetable BDS 1st Year - D24								
Week - 14 (14th July 2025 to 18th July 2025)								
Day & Time	8:00 to 9:00	9:00 to 10:00	10:00 to 11:10	11:10 to 11:20	11:30 to 12:30	12:30 to 1:30	1:30 to 2:30	2:30 to 3:30
Monday 14th July 2025	BLOCK 1 EXAM THEORY The duration of each written paper will be 190 minutes (03 hours &10 min) Examination Hall - 1			Break	Biochemistry (Theory) Code: CFII-B-002 Topic: Energy production in Muscle Facilitator: Prof Dr Hraoon Habib Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-001 Topic: Bone Facilitator: Prof. Dr. Sana Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A 004 Topic: Vision Facilitator: Dr. Kanwal Dental Lecture Hall - 1	PRISME (Dental Education) (Theory) Code: Topic: Reflective Writing Facilitator: Dr. Salar Arsalan Dental Lecture Hall - 1
Day & Time	8:00 to 9:00	9:00 to 10:00	10:00 to 11:00	11:00 to 11:30	11:30 to 12:30	12:30 to 1:30	1:30 to 2:30	2:30 to 3:30
Tuesday 15th July 2025	BLOCK 1 EXAM PRACTICAL The duration of each written paper will be 96 minutes (1 hour and 36 minutes). Oral Biology Lab		Key Discussion	Break	Anatomy (Theory) Code: CFII-A 003 Topic: Face Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	General Pathology & Microbiology (Theory) Code: CFII-MIC-003 Topic: Mode of action of chemotherapeutic agents Facilitator: Dr Majid Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-001 Topic: Bone Facilitator: Integrated with Anatomy Dr. Kanwal Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A 012 Topic: Face Facilitator: Dr. Sarwat Dental Lecture Hall - 1
Day & Time	8:00 to 9:00	9:00 to 10:00	10:00 to 11:00	11:00 to 11:30	11:30 to 12:30	12:30 to 1:30	1:30 to 2:30	2:30 to 3:30
Wednesday 16th July 2025	Physiology (Theory) Code: CFII-P-005 Topic: Action Potentials Facilitator: Dr. Tooba Dental Lecture Hall - 1	Oral Biology (Theory) Code:CFII-OB-002 Topic: Temporomandibular Joint Facilitator: Prof. Dr. Raheela Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A 003 Topic: Face Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	Break	Physiology (Theory) Code: CFII-P-005 Topic: Action Potentials Facilitator: Dr. Nida Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-003 Topic: Muscle Contraction Facilitator: Demonstrators Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Dr Yusra Dental Lecture Hall - 1	Physiology (Theory) Code: CFII-P-005 Topic: Action Potentials Facilitator: Dr. Hafsa Dental Lecture Hall - 1
Thursday 17th July 2025	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Dr Yusra Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A-004 Topic: Vision Facilitator: Dr. Kanwal Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-001 Topic: Bone Facilitator: Prof. Dr. Sana Dental Lecture Hall - 1	Break	Anatomy (Theory) Code: CF-A-004 Topic: Vision Facilitator: Dr. Sarwat Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-002 Topic: Energy production in Muscle Facilitator: Prof Dr Hraoon Habib Dental Lecture Hall - 1	Oral Biology (Practical) (Theory) Code: CFII-OB-006 Topic: Microscopic structure analysis Facilitator: Dr. Anushey / Dr Faseeh Department Lab	Physiology (Theory) Code: CFII-P-005 Topic: Resting Membrane Potential Facilitator: Dr Tooba Dental Lecture Hall - 1
Day & Time	8:00-9:00	9:00-10:00	10:00-11:00	11:00-12:00	12:00-1:00	1.00-2:00	2:00-3:30	
Friday 18th July 2025	General Pathology & Microbiology (Theory) Code: CFII-MIC-004 Topic: Mechanism of resistant bacteria Facilitator: Dr Majid Dental Lecture Hall - 1	Pharmacology (Theory) Code: CFII-Ph-001 Topic: ANS Neuromuscular blockers Facilitator: Dr Rubina Iqbal Dental Lecture Hall - 1	Oral Biology (Practical) (Theory) Code: CFII-OB-001 Topic: Bone Facilitator: Prof. Dr. Sana Department Lab	Physiology (Theory) Code: CFII-P-005 Topic: Action Potentials Facilitator: Dr. Sadia Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-002 Topic: Energy production in Muscle Facilitator: Prof Dr Hraoon Habib Dental Lecture Hall - 1	Jummah Break	Holy Quran (Theory) Topic: Unity of Allah Facilitator: Miss Amna Dental Lecture Hall - 1	
11th July 2025								

Module 4 - Timetable BDS 1st Year - D24 Week - 15 (18th August 2025 to 22nd August 2025)								
Day & Time	**8:00 to 9:00**	**9:00 to 10:00**	**10:00 to 11:00**	**11:00 to 11:30**	**11:30 to 12:30**	**12:30 to 1:30**	**1:30 to 2:30**	**2:30 to 3:30**
Monday **18th August 2025**	Anatomy (Theory) Code: CFII-A 005 Topic: Mandible and Temporomand ibular Joint Facilitator: Dr. Kanwal Dental Lecture Hall - 1	Physiology (Theory) Code: CFII-P-006 Topic: Propagation of the action potential Facilitator: Prof. Dr. Sadia Zafar Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Prof. Dr. Haroon Habib Dental Lecture Hall - 1	Break	Anatomy (Theory) Code: CFII-A 005 Topic: Mandible and Temporomand ibular Joint Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-001 Topic: Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Dr. Yusra Dental Lecture Hall - 1	Anatomy (Practical) Code: CF-II-A 010 Topic: Skull Facilitator: Dr. Sarwat Departmental Lab	Islamiat Topic: Importance of purity Facilitator: Miss Amna Dental Lecture Hall - 1
Tuesday **19th August 2025**	Oral Biology (Theory) Code: CFII-OB-002 Topic: Temporomandibular Joint Facilitator: Prof. Dr. Raheela Dental Lecture Hall - 1	Anatomy (Theory) Code: CFII-A 005 Topic: Mandible and Temporomand ibular Joint Facilitator: Dr. Kanwal Dental Lecture Hall - 1	Physiology (Theory) Code: CFII-P-007 Topic: Contraction of skeletal muscle Facilitator: Dr. Nida Dental Lecture Hall - 1	Break	Oral Biology (Theory) Code: CFII-OB-004 Topic: Maxillary Sinus Facilitator: Integrated with Anatomy Dental Lecture Hall - 1	General Pathology & Microbiology (Theory) Code: CFII-MIC-005 Topic: Oteomyelitis Facilitator: Dr. Nadia salam Dental Lecture Hall - 1	Anatomy Theory (Tutorial) Code: CF-II-A 011 Topic: Mandible Facilitator: Dr. Sarwat Dental Lecture Hall - 1	Pakistan Studies Topic: Basis of Pakistan Facilitator: Miss Amna Dental Lecture Hall - 1
Wednesday **20th August 2025**	Physiology (Theory) Code: CFII-P-005 Topic: Action Potentials Facilitator: Integrated with Pharmacology (Dr. Iqra) Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-002 Topic: Bone Facilitator: Prof. Dr. Sana Dental Lecture Hall - 1	Anatomy (Theory) Code: CF-II-A 007 Topic: Ear Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	Break	Physiology (Theory) Code: CFII-P-008 Topic: General Mechanism of muscle contraction Facilitator: Dr. Amina Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-002 Topic: Bone Facilitator: Dr Sana / Dr Faseeh Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-001 Topic: Dr Yusra Biochemistry and StructuralBasis of Muscle Function and Integrity Facilitator: Dr Yusra Dental Lecture Hall - 1	Islamiat Topic: Importance of purity Facilitator: Miss Amna Dental Lecture Hall - 1
Thursday **21st August 2025**	Biochemistry (Theory) Code: CFII-B-002 Topic: Energy production in Muscles Facilitator: Prof. Dr. Haroon Habib Dental Lecture Hall - 1	Anatomy (Theory) Code: CF-II-A 007 Topic: Ear Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	Oral Biology (Theory) Code: CFII-OB-002 Topic: Muscle Contraction Facilitator: Prof. Dr. Raheela Dental Lecture Hall - 1	Break	Anatomy (Theory) Code: CF-II-A 007 Topic: Ear Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-002 Topic: Energy production in Muscles Facilitator: Dr Yusra Dental Lecture Hall - 1	Oral Biology (Practical) (Theory) Code: CFII-OB-007 Topic: Image Analysis Facilitator: Dr. Anushey / Dr Faseeh Departmental Lab	Pakistan Studies Topic: Basic Principle Facilitator: Miss Amna Dental Lecture Hall - 1
Day & Time	**8:00-9:00**	**9:00-10:00**	**10:00-11:00**	**11:00-12:00**	**12:00-1:00**	**1.00-2:00**	**2:00-3:30**	
Friday **22nd August 2025**	General Pathology & Microbiology (Theory) Code: CFII-MIC-006 Topic: Gram positive rods Facilitator: Dr. Hira Dental Lecture Hall - 1	Anatomy (Theory) Code: CF-II-A 007 Topic: Ear Facilitator: Prof. Dr. Nahid Dental Lecture Hall - 1	PRISME (Behavioural Sciences) Topic: Professionalism & Its attributes Facilitator: Dr. Farhat Dental Lecture Hall - 1	Physiology (Theory) Code: CFII-P-008 Topic: General Mechanism of muscle contraction Facilitator: Dr. Tooba Dental Lecture Hall - 1	Biochemistry (Theory) Code: CFII-B-002 Topic: Energy production in Muscles Facilitator: Prof. Dr. Haroon Habib Dental Lecture Hall - 1	Jummah Break	Holy Quran Topic: Concept Facilitator: Miss Amna Dental Lecture Hall - 1	

Module 4 - Timetable
BDS 1st Year - D24
Week - 16
(25th August 2025 to 29th August 2025)

Day & Time	8:00 to 9:00	9:00 to 10:00	10:00 to 11:00	11:00 to 11:30	11:30 to 12:30	12:30 to 1:30	1:30 to 2:30	2:30 to 3:30
Monday 25th August 2025	**Anatomy (Theory)** **Code:** CF-II-A 009 **Topic:** Applied Anatomy **Facilitator:** Dr. Kanwal **Dental Lecture Hall - 1**	**Physiology (Theory)** **Code:** CF-II-003 **Topic:** Characteristics of whole muscle contraction **Facilitator:** Prof. Dr. Shafina **Dental Lecture Hall - 1**	**Biochemistry (Theory)** **Code:** NS-B-001 **Topic:** Osmotic Diuretic **Facilitator:** Prof Dr Sadia Amir **Dental Lecture Hall - 1**	Break	**Anatomy (Theory)** **Code:** CF-II-A 008 **Topic:** Nose **Facilitator:** Prof. Dr. Nahid **Dental Lecture Hall - 1**	**Biochemistry (Theory)** **Code:** NS-B-001 **Topic:** Neuropathies **Facilitator:** Prof Dr Sadia Amir **Dental Lecture Hall - 1**	**Anatomy (Practical)** **Code:** CF-11-A 007 **Topic:** Ear **Facilitator:** Dr. Sarwat **Dental Lecture Hall - 1**	**Islamiat (Theory)** **Topic:** Philosphy of pyarer **Facilitator:** Ms. Amna **Dental Lecture Hall - 1**
Tuesday 26th August 2025	**Oral Biology (Theory)** **Code:** CFII-OB-001 **Topic:** Bone **Facilitator:** Integrated with Anatomy Dr. Kanwal **Dental Lecture Hall - 1**	**Anatomy (Theory)** **Code:** CF-II-A 008 **Topic:** Nose **Facilitator:** Prof. Dr. Nahid **Dental Lecture Hall - 1**	**Physiology (Theory)** **Code:** CF-II-010 **Topic:** Neuromuscular Transmission and Excitation-Contraction Coupling **Facilitator:** Dr. Nida **Dental Lecture Hall - 1**	Break	**Oral Biology (Theory)** **Code:** CFII-OB-001 **Topic:** Bone **Facilitator:** Integrated with OMFS **Dental Lecture Hall - 1**	**General Pathology & Microbiology (Tutorial)** **Code:** CFII-MIC-006 **Topic:** Gram positive rods **Facilitator:** Demonstrator **Dental Lecture Hall - 1**	**Anatomy (Theory)** **Code:** CF-II-A 008 **Topic:** Nose **Facilitator:** Dr. Sarwat **Dental Lecture Hall - 1**	**Pakistan Studies (Theory)** **Topic:** Silent Feature of Pakistan **Facilitator:** Ms. Amna **Dental Lecture Hall - 1**
Wednesday 27th August 2025	**Physiology (Theory)** **Code:** CFII-P-011 **Topic:** Excitation and Contraction of Smooth Muscle **Facilitator:** Dr. Amina **Dental Lecture Hall - 1**	**Oral Biology (Theory)** **Code:** CFII-OB-003 **Topic:** Muscle Contraction **Facilitator:** Dr. Raheela **Dental Lecture Hall - 1**	**Anatomy (Theory)** **Code:** CF-II-A 008, CF-II-OB 004 **Topic:** Nose **Facilitator:** Prof. Dr. Nahid **Dental Lecture Hall - 1**	Break	**Physiology (Theory)** **Code:** CFII-P-007 and CFII-P-011 **Topic:** Describe the physiological anatomy of skeletal muscles **Facilitator:** Integrated with Anatomy. Dr. Kanwal	**Oral Biology (Theory)** **Code:** CFII-OB-001 **Topic:** Bone **Facilitator:** Integrated with Anatomy Dr Kanwal **Dental Lecture Hall - 1**	**Biochemistry (Theory)** **Code:** NS-B-004 **Topic:** Neuropathies **Facilitator:** Dr Sadia Khalil **Dental Lecture Hall - 1**	**Islamiat (Theory)** **Topic:** Pyarer Rolo for Soul **Facilitator:** Ms. Amna **Dental Lecture Hall - 1**
Thursday 28th August 2025	**Biochemistry (Theory)** **Code:** NS-B-005 **Topic:** Neuropathies **Facilitator:** Dr Sadia Khalil **Dental Lecture Hall - 1**	**Anatomy (Theory)** **Code:** CF-II-A 013 **Topic:** Jaw Muscle **Facilitator:** Dr. Kanwal/Dr. Sarwat **Dental Lecture Hall - 1**	**Oral Biology (Theory)** **Code:** CFII-OB-003 **Topic:** Muscle Contraction **Facilitator:** Integrated with Oral Medicine **Dental Lecture Hall - 1**	Break	**Anatomy (Theory)** **Code:** CF-II-A 014 **Topic:** Neurovascular supply of Face **Facilitator:** Dr Kanwal/ Dr. Sarwat **Dental Lecture Hall - 1**	**Biochemistry (Theory)** **Code:** CFII-B-001 **Topic:** Biochemistry and StructuralBasis of Muscle Function and Integrity **Facilitator:** Dr Sadia Khalil	**Oral Biology (Practical)** **Code:** CFII-OB-008 **Topic:** TMJ **Facilitator:** Integrated with Anatomy **Dental Lecture Hall - 1**	**Pakistan Studies (Theory)** **Topic:** Silent Feature of Pakistan **Facilitator:** Ms. Amna **Dental Lecture Hall - 1**
Day & Time	**8:00-9:00**	**9:00-10:00**	**10:00-11:00**	**11:00-12:00**	**12:00-1:00**	**1.00-2:00**	**2:00-3:30**	
Friday 29th August 2025	Assessment Slot	Assessment Slot	Assessment Slot	Assessment Slot	**Biochemistry (Theory)** **Code:** CFII-B-001 **Topic:** Biochemistry and StructuralBasis of Muscle Function and Integrity **Facilitator:** Dr Sadia Khalil **Dental Lecture Hall - 1**	Jummah Break	**Holy Quran (Theory)** **Topic:** **Define Tawheed** **Facilitator:** Ms. Amna **Dental Lecture Hall - 1**	
	Module Exam 5							

Allocation of Hours

1st Year BDS - D24

Block 2 - Module 4

Sr.	Subjects	Theory Hours	Practical Hours	Total Hours
1	Oral Biology & Tooth Morphology	20	6	26
2	Anatomy	28	5	33
3	Biochemistry	24	0	24
4	General Pathology & Microbiology	7	0	7
5	Pharmacology	2	0	2
6	Physiology	19	0	19
TOTAL		100	11	111

Modular Outcomes

Module Name	Modular Outcomes
Block 2 Module 4 Craniofacial 2	● Apply topographic anatomy of the skull, scalp, facial layers, orbit, mandible, temporal/infratemporal/pterygopalatine fossae, and paranasal sinuses to identify key landmarks and foramina for clinical assessment. ● Map extracranial courses and branches of the trigeminal (V), facial (VII), oculomotor (III), trochlear (IV), and abducent (VI) nerves, and explain their relevance to facial sensation, expression, and anesthesia techniques. ● Correlate TMJ structure and histology with neuromuscular biomechanics—including motor units, muscle spindles, and Golgi tendon organs—to analyze normal function and common TMJ pathologies. ● Explain neuromuscular physiology and muscle and connective tissue biochemistry by detailing membrane potentials, action potential generation and propagation, neuromuscular junction transmission, and excitation–contraction coupling in skeletal muscle. ● Integrate pharmacology of neuromuscular blockers (depolarizing and non-depolarizing agents) with clinical indications and side-effect profiles for safe perioperative management along with basic concepts of microbiology. ● Demonstrate surface marking techniques for extracranial branches of cranial nerves and major facial vessels to guide diagnostic palpation, nerve blocks, and minor surgical procedures.

Learning Objectives

Session	Section/ class code	Week No	subject	TOTAL HOURS in a week	No of (Lecture/ Tutorial)s subject wise	Mode of Teaching	Topic	Code	Learning Objective	Hours Duration	Reference	Facilitator
2024-2025		13	Holy Quran	2	1	Theory (Lecture/ Tutorial)	Oneness of Allah		unity of Allah in being	1	notes	Miss. Amna
2024-2025		13	Oral Biology	1	1	Theory Lecture	Temporomandibular Joint	CFII-OB-002	Describe the histology of the TMJ (temporal and condylar bone, muscles, capsule, disk, synovial membrane and ligaments)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Raheela
2024-2025		13	Oral Biology	1	2	Theory Lecture	Muscle Contraction	CFII-OB-003	Describe the role of muscle contraction illustrating the role of the motor unit, muscle spindles and Golgi tendon organs	1	Ten Cate's Oral Histology: Development, Structure, and Function	Integrated with Physiology
2024-2025		13	Oral Biology	1	3	Theory Lecture	Bone	CFII-OB-001	Describe the organic and inorganic components of the bone matrix	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Sana

2024-2025		13	Oral Biology	1	4	Theory Lecture	Bone	CFII-OB-001	Distinguish between compact and spongy bone, and their locations and functions	1	Ten Cate's Oral Histology: Development, Structure, and Function	Integrated with Anatomy Dr. Kanwal
2024-2025		13	Oral Biology	1	5	Theory Lecture	Temporomandibular Joint	CFII-OB-002	Describe the histology of the TMJ (temporal and condylar bone, muscles, capsule, disk, synovial membrane and ligaments)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Raheela
2024-2025		13	Oral Biology	1	1	Practical	Bone	CFII-OB-005	Draw and label the histological factor of compact and spongy bone	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Anushey / Dr Faseeh
2024-2025		13	Anatomy	1	1	Theory (Lecture)	Skull	CFII-A 001	Describe the features and structures of different views of skull (Anterior, Superior) Discuss the sutures and fontanelles of skull, their age changes and clinical significance.	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal

2024-2025		13	Anatomy	1	2	Theory (Lecture)	Scalp	CFII-OB002	List the layers of scalp and describe the anatomical features with neurovascular supply and lymphatic drainage of scalp. Scalp Give anatomical justification of spread of scalp infections, profuse bleeding in superficial scalp lacerations, gaping of scalp wounds	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid
2024-2025		13	Anatomy	1	3	Theory (Lecture)	Skull	CFII-A-001	Describe the features and structures of different views of skull (Anterior, Superior) Discuss the sutures and fontanelles of skull, their age changes and clinical significance.	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal/ Dr. Sarwat
2024-2025		13	Anatomy	1	4	Theory (Lecture)	Face	CFII-A 003	Enlist in tabulated manner the muscles of facial expression, giving their nerve supply and actions. Describe the extracranial course, branches, and distribution of the facial nerve.Explain the causes and clinical consequences of damage to the nerve.	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid

			Anatomy	1	5	Theory (Tutorial)	Skull	CFII-A-001	Describe the features and structures of different views of skull (Lateral, Posterior)	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal/ Dr. Sarwat
2024-2025		13	Anatomy	1	6	Theory (Lecture)	Bone	CFII-OB001	Understand the processes of intramembranous and endochondral ossification.	1	Medical Histology By Laiq Hussain Siddiqui	Dr. Kanwal
2024-2026		13	Anatomy	1	7	Theory (Practical)	Skull	CFII-A010	Demonstrate the ability to accurately orient a dry human skull in normal verticals, occipitalis, frontalis, lateralis, and basalis views; and identify key anatomical and surface landmarks, sutures, and foramina with their content relevant to each view	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Sarwat
2024-2027		13	Anatomy	1	8	Theory (Lecture)	Skull	CFII-A-001	Describe the features and structures of different views of skull (Inferior)	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal
2024-2025		13	Anatomy	1	1	(Practical)	Skull	CFII-A-001	Describe the features and structures of different views of skull (Inferior)	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal/ Dr. Sarwat

2024-2025		13	Physiology	1	1	Theory (Lecture/ Tutorial)	Myelinated and Unmyelinated Nerve Fibers	CFII-P-002	Enlist the neuroglia cells responsible for myelination in Central Nervous System (CNS) & Peripheral Nervous System (PNS)	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Tooba
2024-2025		13	Physiology	1	2	Theory (Lecture/ Tutorial)	Myelinated and Unmyelinated Nerve Fibers	CFII-P-002	Enlist the steps of myelination in peripheral nervous system, Define Multiple Sclerosis	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Nida
2024-2025		13	Physiology	1	3	Theory (Lecture/ Tutorial)	Membrane Potentials	CFII-P-003	Explain Nernst potential of Na & K, Derive the Nernst equation, Explain the physiological basis of the Goldman equation and write the equation	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Hafsa
2024-2025		13	Physiology	1	4	Theory (Lecture/ Tutorial)	Resting Membrane Potential	CFII-P-004	Describe the resting membrane potential of a nerve fiber and the role of various ion channels, Discuss roles of different channels in calculating Resting Membrane potential of a nerve fiber	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Amina Rizvi
2024-2025		13	Physiology	1	5	Theory (Lecture/ Tutorial)	Action Potentials	CFII-P-005	Define Action potential and ionic basis.	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Tooba

2024-2025		13	Biochemistry	1	1	Theory (Lecture/ Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Describe the structure and function of myoglobin, its role in oxygen storage and delivery in muscle tissue,and its significance as a biochemical marker in muscle injury and how is it different from hemoglobin	1	Lippincott 9th edition	Dr Yusra
2024-2025		13	Biochemistry	1	2	Theory (Lecture/ Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Describe the structure, types, and functions of collagenand explain their roles in maintaining the mechanical strength and elasticity of muscle connective tissue.	1	Lippincott 9th edition	Dr Yusra
2024-2025		13	Biochemistry	1	3	Theory (Lecture/Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	dentify disorders associated with collagen defects, particularly those affecting muscle support structures and connective tissue integrity	1	Lippincott 9th edition	Dr Yusra
2024-2025		13	Biochemistry	1	4	Theory (Lecture/Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Describe the mechanism of glucose uptake into tissues through glucose transporters and explain its role in cellular energy availability	1	Lippincott 9th edition	Prof. Dr Haroon Habib
2024-2026		13	Biochemistry	1	5	Theory (Lecture/Tutorial)	Energy production in Muscles	CFII-B-001	Explain the function and regulation of the pyruvate dehydrogenase (PDH) complex in linking glycolysis to the tricarboxylic acid (TCA) cycle.	1	Lippincott 9th edition	Prof. Dr Haroon Habib

2024-2027		13	Biochemistry	1	6	Theory (Lecture/Tutorial)	Energy production in Muscles	CFII-B-002	Describe the TCA cycle and explain how it generates reduced coenzymes (NADH, $FADH_2$) that fuel oxidative metabolism	1	Lippincott 9th edition	Prof. Dr Haroon Habib
2024-2025		13	Biochemistry	1	7	Theory (Lecture/Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Describe the structure, types, and functions of elastin,and explain their roles in maintaining the mechanical strength and elasticity of muscle connective tissue.	1	Lippincott 9th edition	Dr Yusra Leghari
2024-2026		13	General Pathology & Microbiology	1	1	Theory (Lecture/	Culture Media	CFII-MIC-001	Composition & type of culture media	1	Levinson 19th Edition	Dr Majid
2024-2025		13	PRISME (Dental Education)	1	1	Theory Lecture	Portfolio Development		- Understand the importance of portfolio development in supporting their dental career, including professional growth, clinical reflection, and job readiness. - differentiate between a résumé, a curriculum vitae (CV), and a portfolio, recognizing the distinct purpose and content of each. - Describe the process of portfolio development, including setting goals, selecting artifacts, writing reflections, organizing content, and presenting the final product. - Develop professional digital portfolio using platforms such as Google Sites and PowerPoint. - Identify and include appropriate content in their portfolio, such as clinical cases, academic achievements, certifications, and reflective writing.	1		Dr. Salar Arsalan

2024-2025		13	General Pathology & Microbiology	1	1	Theory** (Lecture/	Pathogenicty of microorganism	CFII-MIC-002	Factors influencing microbial pathogenicity	1	Levinson 19th Edition	Dr Hira
2024-2025		13	Pharmacology	1	1	Theory** (Lecture/	ANS Neuromuscular blockers	CFII-Ph001	Classify skeletal muscle relaxants according to their mechanism of action. ii. Describe the mechanism of action of non-depolarizing skeletal muscle relaxants.	1	Lippincotts Pharmacology	Dr Rubina Iqbal
2024-2025		13	Oral Biology	1	1	Practical	Bone	CFII-OB-005	Draw and label the histological factor of compact and spongy bone	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr Anushey / Dr Faseeh
2024-2025		13	Physiology	1	1	Theory** (Lecture/	Membrane Potential and Action Potentials (Nerve)	CFII-P-001	Describe the physiological anatomy of a neuron, including its structure and function	1		Integrated with anatomy Dr. Kanwal

Session	Section/ class code	Week No	subject	TOTAL HOURS in a week	No of (Lecture/Tutorial) subject wise	Mode of Teaching	Topic	Code	Learning Objective	Hours Duration	Reference	Facilitator
2024-2025		14	Holy Quran	2	1	Theory (Lecture/ Tutorial)	Unity of Allah		Unity of Allah in attributes	1	notes	Miss Amna
2024-2025		14	PRISME (Dental Education)	1	1	Theory Lecture	Reflective Writing		- Understand the concept of reflection. - Appreciate the reflection process through the reflection cycle. - Describe the significance of reflection in dental practice. - Utilize reflective writing to effectively construct their portfolios.	1		Dr. Salar Arsalan
2024-2025		14	Oral Biology	1	1	Theory Lecture	Bone	CFII-OB-001	Describe the origin of bone cells and the molecular facts involved	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Sana

2024-2025		14	Oral Biology	1	2	Theory Lecture	Bone	CFII-OB-001	Describe the function of osteoblasts, osteocytes, and osteoclasts in Bone Formation and Remodelling	1	Ten Cate's Oral Histology: Development, Structure, and Function	Integrated with Anatomy Dr. Kanwal
2024-2025		14	Oral Biology	1	3	Theory Lecture	Temporomandibular Joint	CFII-OB-002	Describe the histology of the TMJ (temporal and condylar bone, muscles, capsule, disk, synovial membrane and ligaments)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Raheela
2024-2025		14	Oral Biology	1	4	Theory Lecture	Muscle Contraction	CFII-OB-003	Describe the microscopic structure of bone (osteon, central canal, lamellae, lacunae, canaliculi, and blood vessels)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Integrated with Anatomy Dr Kanwal
2024-2025		14	Oral Biology	1	5	Theory Lecture	Bone	CFII-OB-001	Understand the processes of intramembranous and endochondral ossification	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Sana
2024-2025		14	Oral Biology	1	1	Practical	Microscopic structure analysis	CFII-OB-006	Identify and interpret histological sections of bone tissue under a microscope	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Anushey / Dr Faseeh

2024-2025		14	*Anatomy*	*1*	*1*	Theory (Lecture)	Vision	CFII-A 004	Define the boundaries and openings of orbital cavity. List the structures traversing these openings. In a tabulated manner enlist the extraocular and intraocular muscles of eyeball and eyelid muscles giving their nerve supply and actions List and define the movements of eyeball with special reference to the axis	1	Snell`s Clinical Anatomy By Regions 10th Edition	Dr. Kanwal
2024-2025		14	Anatomy	1	2	Theory (Lecture)	Face	CFII-A 003	Describe the extracranial course, branches, and distribution of trigeminal nerve. Explain the causes and clinical consequences of damage to the nerve. Describe the innervation of the maxillary and mandibular teeth, and their supporting structures and the anatomical basis of common variations in sensory innervation of the teeth.	1	Snell`s Clinical Anatomy By Regions 10th Edition	Prof. Dr. Nahid

2024-2025		14	Anatomy	1	3	Theory (Lecture)	Face	CFII-A 003	Describe the vascular supply and lymphatic supply of face Describe the danger area of face with it its clinical significance. Define the routes of spread of infection from face and scalp to brain	1	Snell`s Clinical Anatomy By Regions 10th Edition	Prof. Dr. Nahid
2024-2025		14	Anatomy	1	4	Theory (Tutorial)	Face	CFII-A 012	Demonstrate and systematically identify major arteries, veins, and nerves on anatomical models or cadaveric dissections; locate their course, branches, and anatomical relations; and correlate their clinical significance with surrounding structures	1	Snell`s Clinical Anatomy By Regions 10th Edition	Dr.Sarwat
2024-2025		14	Anatomy	1	5	Theory (Lecture)	Vision	CFII-A-004	List the parts of Lacrimal apparatus giving their location and anatomical features. Describe the nerve supply of lacrimal gland Give the anatomical structure of eyeball emphasizing on its three coats and their neurovascular supply	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal

2024-2026		14	Anatomy	1	6	Theory (Tutorial)	Vision	CF-A-004	Give the anatomical structure of eyeball emphasizing on its three coats and their neurovascular supply	1	Snell`s Clinical Anatomy By Regions 10th Edition	Dr. Sarwat
2024-2025		14	Anatomy	1	1	Practical	Temporal, Infratemporal and Pterygopalatine fossa		Describe the boundaries contents and primary communications of temporal, infratemporal and pterygopalatine fossa	1	Snell`s Clinical Anatomy By Regions 10th Edition	Dr. Sarwat
2024-2025		14	Physiology	1	1	Theory (Lecture/ Tutorial)	Action Potentials	CFII-P-005	Discuss the role of voltage-gated channels in generating action potentials. Define threshold stimulus	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Hafsa
2024-2025		14	Physiology	1	2	Theory (Lecture/ Tutorial)	Action Potentials	CFII-P-005	Define the All-or-None Law. Define absolute refractory period, and relative refractory period also mention their physiological basis	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Tooba
2024-2025		14	Physiology	1	3	Theory (Lecture/ Tutorial)	Action Potentials	CFII-P-005	Discuss the effects of hypocalcemia on nerve excitability.	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Nida

2024-2025		14	Biochemistry	1	1	Theory (Lecture/ Tutorial)	Energy production in Muscle	CFII-B-002	Explain the structure and function of the electron transport chain (ETC) and describe how oxidative phosphorylation, utilizing ATP synthase, generates ATP through the proton motive force.	1	Lippincott 9th edition	Prof Dr Hraoon Habib
2024-2025		14	Biochemistry	1	2	Theory (Lecture/ Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Describe the structure, types, and functions of elastin,and explain their roles in maintaining the mechanical strength and elasticity of muscle connective tissue.	1	Lippincott 9th edition	Dr Yusra
2024-2025		14	Biochemistry	1	3	Theory (Lecture/ Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Identify disorders associated with elastin defects, particularly those affecting muscle support structures and connective tissue integrity	1	Lippincott 9th edition	Dr Yusra
2024-2026		14	Biochemistry	1	4	Theory (Lecture/ Tutorial)	Energy production in Muscle	CFII-B-002	Explain the structure and function of the electron transport chain (ETC) and describe how oxidative phosphorylation, utilizing ATP synthase, generates ATP through the proton	1	Lippincott 9th edition	Prof Dr Hraoon Habib

									motive force.			
2024-2027		14	Biochemistry	1	5	Theory (Lecture/ Tutorial)	Energy production in Muscle	CFII-B-002	Identify the effects of ETC inhibitors and uncouplers on electron transport and ATP synthesis, and discuss their implications for cellular energy production.	1	Lippincott 9th edition	Prof Dr Hraoon Habib
2024-2025		14	General Pathology & Microbiology	1	1	Lecture	Mode of action of chemotherapeutic agents	CFII-MIC-003	Mechanism of chemotherapy	1	Levinson 19th Edition	Dr Majid
2024-2025		14	General Pathology & Microbiology	1	1	Lecture	Mechanism of resistant bacteria	CFII-MIC-004	Genetics & biochemical resistant bacteria to antibiotics	1	Levinson 19th Edition	Dr Majid
2024-2025		14	Pharmacology	1	1	Lecture	ANS Neuromuscular blockers	CFII-Ph 001	Explain the pharmacological actions of non-depolarizing skeletal muscle relaxant iv. Describe the mechanism of action of succinylcholine. Enumerate therapeutic uses of peripherally acting skeletal muscle relaxants.	1	Lippincott's Pharmacology 8th edition	Dr Rubina Iqbal

2024-2025		14	Oral Biology	1	1	Lecture	Bone	CFII-OB-001	Understand the processes of intramembranous and endochondral ossification	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr Sana
2024-2025		14	Physiology	1	1	Lecture	Action Potentials	CFII-P-005	Explain the mechanism of local anesthetics on nerve excitability	1	Explain the propagation of action potentials, Define Saltatory conduction and its benefits. Explain mechanism of tetany	Dr. Sadia

Session	Section / class code	Week No	subject	TOTAL HOURS in a week	No of (Lecture/ Tutorial)s subject wise	Mode of Teaching	Topic	Code	Learning Objective	Hours Duration	Reference	Facilitator
2024-2025		15	Oral Biology	1	1	Theory (Lecture/Tutorial)	Temporomandibular Joint	CFII-OB-002	Describe the histology of the TMJ (temporal and condylar bone, muscles, capsule, disk, synovial membrane and ligaments)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Integrated with Anatomy
2024-2025		15	Oral Biology	1	2	Theory (Lecture/Tutorial)	Maxillary Sinus	CFII-OB-004	Describe the anatomy and histology of the maxillary sinus	1	Ten Cate's Oral Histology: Development, Structure, and Function	Integrated with Anatomy
2024-2025		15	Oral Biology	1	3	Theory (Lecture/Tutorial)	Bone	CFII-OB-002	Understand the processes of intramembranous and endochondral ossification)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Sana
2024-2025		15	Oral Biology	1	4	Theory (Lecture/Tutorial)	Bone	CFII-OB-002	Describe the histology of the TMJ (temporal and condylar bone, muscles, capsule, disk, synovial membrane and ligaments)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr Raheela
2024-2025		15	Oral Biology	1	5	Theory (Lecture/Tutorial)	Muscle Contraction	CFII-OB-002	Describe the nerve supply of the joint emphasizing the role of nerve endings	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Raheela

2024-2025		15	Oral Biology	1	1	Practical	Image Analysis	CFII-OB-007	Analyze and interpret microscopic images of bone to identify its components and features	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Anushey / Dr Faseeh
2024-2025		15	Anatomy	1	1	Theory (Lecture)	Mandible and Temporomandibular Joint	CFII-A 005	Describe the bony features of mandible.	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal
2024-2025		15	Anatomy	1	2	Theory (Lecture)	Mandible and Temporomandibular Joint	CFII-A 005	Describe temporomandibular joint mentioning its ligaments, nerve supply and movements.	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid
2024-2025		15	Anatomy	1	3	Theory (Lecture)	Mandible and Temporomandibular Joint	CFII-A 005	Identify and describe the muscles of mastication along with origin, insertion, action, and innervation of each muscle	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal

2024-2025		15	Anatomy	1	4	Theory (Tutorial)	Mandible	CF-II-A 011	Identify and locate the major anatomical landmarks, foramina (with their contents), and surface features of the mandible; articulate it the skull; recognize surrounding anatomical relations (anterior, posterior, medial, and lateral);and demonstrate basic functional mandibular movements and differentiate the role of muscles of Mastication and accessory muscles in protrusion, lateral excursion, opening, and closing.	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Sarwat
2024-2025		15	Anatomy	1	5	Theory (Lecture)	Ear	CF-II-A 007	Describe the anatomical features and neurovascular supply of external ear	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid

2024-2026		15	Anatomy	1	6	Theory (Lecture)	Ear	CF-II-A 007	Describe the boundaries, contents, neurovascular supply and communications of middle ear cavity Describe the anatomical features of auditory tube	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid
2024-2025		15	Anatomy	1	7	Theory	Temporal, Infratemporal and Pterygopalatine fossa	CFII-A 006	Describe the boundaries contents and primary communications of temporal, infratemporal and pterygopalatine fossa Describe the location, roots and distribution of pterygopalatine ganglion	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal
2024-2027		15	Anatomy	1	8	Theory (Lecture)	Ear	CF-II-A 007	Describe the parts, anatomical features and neurovascular supply of internal ear Describe the course and distribution of vestibulocochlear nerve	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid

2024-2029		15	Anatomy	1	1	Practical	Skull	CF-II-A 010	Identify and describe the anatomical features, boundaries, and foramina of the anterior, middle, and posterior cranial fossae, including the grooves of the dural venous sinuses	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Sarwat
2024-2025		15	Physiology	1	1	Theory (Lecture/Tutorial)	Propagation of the action potential	CFII-P-006	Explain the propagation of action potentials, Define Saltatory conduction and its benefits. Explain mechanism of tetany	1	Guyton and Hall Physiology Textbook 14th Edition	Prof. Dr. Sadia Zafar
2024-2025		15	Physiology	1	2	Theory (Lecture/Tutorial)	Contraction of skeletal muscle	CFII-P-007	Describe the physiology anatomy of skeletal muscles, Describe the structure of Sarcomere	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Nida
2024-2025		15	Physiology	1	3	Theory (Lecture/Tutorial)	Action Potentials	CFII-P-005	Explain the mechanism of local anesthetics on nerve excitability	1		Integrated with Pharmacology (Dr. Iqra)
2024-2025		15	Physiology	1	4	Theory (Lecture/Tutorial)	General Mechanism of muscle contraction	CFII-P-008	Explain general mechanism of skeletal muscle contraction	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Amina

2024-2025		15	Biochemistry	1	1	Theory (Lecture/Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Explain the composition and function of the extracellular matrix (ECM) in muscle tissue, including the roles of proteoglycans, collagen, fibronectin, and integrins in muscle cell adhesion, signaling, and repair.	1	lippincot cell biology	Dr Yusra
2024-2025		15	Biochemistry	1	2	Theory (Lecture/Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Differentiate muscle fiber types (Type I, IIa, IIb) based on structure, metabolism, and functional properties.	1	Lecture notes	Dr. Yusra
2024-2025		15	Biochemistry	1	3	Theory (Lecture/Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Describe the structure, types, and functions of collagenand explain their roles in maintaining the mechanical strength and elasticity of muscle connective tissue.	1	Lippincott 9th edition	Dr Yusra

2024-2026		15	Biochemistry	1	4	Theory (Lecture/Tutorial)	Energy production in Muscles	CFII-B-002	Explain the processes of glycogenesis and glycogenolysis in muscle tissue, including their regulation, the role of key enzymes, and their contribution to ATP production during exercise.	1	Lippincott 9th edition	Prof Dr Haroon Habib
2024-2027		15	Biochemistry	1	5	Theory (Lecture/Tutorial)	Energy production in Muscles	CFII-B-002	Explain the processes of glycogenesis and glycogenolysis in muscle tissue, including their regulation, the role of key enzymes, and their contribution to ATP production during exercise.	1	Lippincott 9th edition	Prof Dr Haroon Habib
2024-2025		15	Biochemistry	1	6	Theory (Lecture/Tutorial)	Energy production in Muscles	CFII-B-002	Describe the ATP-PC system, its role in providing immediate energy during high-intensity activities, and the regeneration of ATP through phosphocreatine breakdown.	1	Lecture notes	Prof Dr Haroon Habib

2024-2025		15	General Pathology & Microbiology	1	1	Lecture	Osteomyelitis	CFII-MIC-005	Osteomyelitis	1	Robins 11th edition	Dr. Nadia salam
2024-2025		15	General Pathology & Microbiology	1	1	Lecture	Gram positive rods	CFII-MIC-006	Actinomycetes with epidemiology and pathogenesis	1	Levinson 19th Edition	Dr Hira
2024-2025		15	Anatomy	1	1	Theory (Lecture)	Ear	CF-II-A 007	Describe the parts, anatomical features and neurovascular supply of internal ear Describe the course and distribution of vestibulocochlear nerve	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid
2024-2025		15	PRISME (Behavioural Sciences)	1	1	Lecture	Professionalism & Its attributes,		Define professionalism. Discuss different attributes of professionalism.	1		Dr. Farhat
2024-2026		15	Physiology	1	1	Lecture	General Mechanism of muscle contraction	CFII-P-008	Explain the general mechanism of skeletal muscle contraction;	1	Guyton and Hall Physiology Textbook 14th edition,	Dr. Tooba
2024-2026		15	Holy Quran	1	1		Concept		Concept of shirk	1	notes	Ms Amna

2024-2027		15	Islamiyat	1	1	Theory (Lecture/Tutorial)	Importance of purity		prayer	1	notes	Ms amna
2024-2028		15	Islamiyat	1	2	Theory (Lecture/Tutorial)	importance of purity		physical purity	1	noites	MS. Amna
2024-2029		15	Pak Studies	1	1	Theory (Lecture/Tutorial)	Basis of Pakistan		creation of Pakistan	1	notes	ms amna
2024-2025		15	Pak Studies	1	2	Theory (Lecture/Tutorial)	Basic Principle		creation of Pakistan	1	notes	Ms Amna

Session	Section/ class code	Week No	subject	TOTAL HOURS in a week	No of (Lecture/ Tutorial) subject wise	Mode of Teaching	Topic	Code	Learning Objective	Hours Duration	Reference	Facilitator
2024-2025		16	Oral Biology	1	1	Theory Lecture	Bone	CFII-OB-001	Describe the microscopic structure of bone (osteon, central canal, lamellae, lacunae, canaliculi, and blood vessels)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr Sana
2024-2025		16	Oral Biology	1	2	Theory Lecture	Bone	CFII-OB-001	Relate bone histology to dental procedures, such as tooth extraction, implant placement, and bone grafting	1	Ten Cate's Oral Histology: Development, Structure, and Function	Integrated with OMFS
2024-2025		16	Oral Biology	1	3	Theory Lecture	Muscle Contraction	CFII-OB-003	Describe the biomechanics of TMJ	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr. Raheela

2024-2025		16	Oral Biology	1	4	Theory Lecture	Bone	CFII-OB-001	Describe the microscopic structure of bone (osteon, central canal, lamellae, lacunae, canaliculi, and blood vessels)	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr Sana
2024-2025		16	Oral Biology	1	5	Theory Lecture	Muscle Contraction	CFII-OB-003	Identify the common TMJ associated clinical manifestations	1	Ten Cate's Oral Histology: Development, Structure, and Function	Integrated with Oral Medicine
2024-2025		16	Oral Biology	1	1	Practical	TMJ	CFII-OB-008	Draw & label the histological section of the temporomandibular joint, showing temporal bone, disc, condylar bone, capsule, articular disc, and synovial membrane	1	Ten Cate's Oral Histology: Development, Structure, and Function	Dr Anushey / Dr Faseeh
2024-2025		16	Anatomy	1	1	Theory (Lecture)	Applied Anatomy	CF-II-A 009	Identify and classify fractures of the maxilla based on anatomical patterns (Le Fort classification). Identify and classify fractures of the mandible based on anatomical regions	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Kanwal

2024-2025		16	Anatomy	1	2	Theory (Lecture)	Nose	CF-II-A 008	Describe the anatomical features and neurovascular supply of external nose	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid
2024-2025		16	Anatomy	1	3	Theory (Lecture)	Nose	CF-II-A 008	Describe the boundaries of nasal cavity: nasal septum, lateral wall of nose, roof and floor. Discuss the clinical correlates of nose: Epistaxis, Foreign body in the nose.	1	Snell`s Clinical Antomy By Regions 10th Edition	Prof. Dr. Nahid
2024-2025		16	Anatomy	1	4	Theory (Tutorial)	Nose	CF-II-A 008	Describe the anatomical features and neurovascular supply of external nose Describe the boundaries of nasal cavity: nasal septum, lateral wall of nose, roof and floor. Give their anatomical features and neurovascular supply	1	Snell`s Clinical Antomy By Regions 10th Edition	Dr. Sarwat

2024-2025		16	Anatomy	1	5	Theory (Lecture)	Nose	CF-II-A 008, CF-II-O B 004	Give their anatomical features and neurovascular supply List the paranasal sinuses giving their locations, openings, neurovascular supply and clinical significance. Describe the anatomy and histology of the maxillary sinus	1	Snell`s Clinical Anatomy By Regions 10th Edition	Prof. Dr. Nahid
2024-2026		16	Anatomy	1	6	Theory (Tutorial)	Jaw Muscle	CF-II-A 013	Identify and demonstrate the origin, insertion, nerve supply, and actions of the muscles of mastication and facial expression on models or cadaveric specimens	1	Snell`s Clinical Anatomy By Regions 10th Edition	Dr. Kanwal/Dr. Sarwat
2024-2027		16	Anatomy	1	7	Theory (Tutorial)	Neurovascular supply of Face	CF-II-A 014	Demonstrate surface marking of extracranial branches of the facial nerve and trigeminal nerve in relation to relevant structures, and identify their anatomical pathways and clinical relevance.	1	Snell`s Clinical Anatomy By Regions 10th Edition	Dr Kanwal/ Dr. Sarwat

2024-2029		16	Anatomy	1	1	Practical	Ear	CF-11-A 007	Describe the anatomical features and neurovascular supply of external, middle and internal ear	1	Snell`s Clinical Anatomy By Regions 10th Edition	Dr. Sarwat
2024-2025		16	Physiology	1	1	Theory (Lecture/Tutorial)	Characteristics of whole muscle contraction	CF-II-009	Define and differentiate isotonic and isometric contraction with 2 examples of each. Give physiological basis of tetanization and multiple fiber summation. Define motor unit. Give the physiological absis of Rigor Mortis. Explain muscle fatigue	1	Guyton and Hall Physiology Textbook 14th Edition	Prof. Dr. Shahina
2024-2025		16	Physiology	1	2	Theory (Lecture/Tutorial)	Neuromuscular Transmission and Excitation-Contraction Coupling	CF-II-010	Describe the physiological anatomy of NMJ. Explain Mechanism of NM transmission and generation of End Plate Potential, Give pathophysiology of Myasthenia Gravis	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Nida

2024-2025		16	Physiology	1	3	Theory (Lecture/Tutorial)	Excitation and Contraction of Smooth Muscle	CFII-P-011	Describe mechanism of smooth muscle contraction in comparison to skeletal muscle. Explain latch phenomenon of smooth muscles and its benefits	1	Guyton and Hall Physiology Textbook 14th Edition	Dr. Amina
2024-2025		16	Physiology	1	4	Theory (Lecture/Tutorial)	Describe the physiological anatomy of skeletal muscles	CFII-P-007 and CFII-P-011	Describe the physiological anatomy of skeletal muscles and smooth muscles	1	Guyton and Hall Physiology Textbook 14th Edition	Integrated with Anatomy. Dr. Kanwal
2024-2025		16	Biochemistry	1	1	Theory (Lecture/Tutorial)	Osmotic diuretic	NS-B-001	Elaborate the structure of mannitol & give its clinical uses.	1	Lippincott 8th edition	Prof Dr Sadia Amir
2024-2025		16	Biochemistry	1	2	Theory (Lecture/Tutorial)	Neuropathies	NS-B-001	Elaborate the structure of mannitol & give its clinical uses.	1	Lippincott 8th edition	Prof Dr Sadia Amir
2024-2025		16	Biochemistry	1	3	Theory (Lecture/Tutorial)	Neuropathies	NS-B-004	Discuss chemistry, sources, RDA, biochemical role, deficiency & toxicity of B6 & B12	1	Lippincott 8th edition	Dr Sadia Khalil

2024-2026		16	Biochemistry	1	4	Theory (Lecture/Tutorial)	Neuropathies	NS-B-005	Discuss chemistry, sources, RDA, biochemical role, deficiency & toxicity of B6 & B12	1	Lippincott 8th edition	Dr Sadia Khalil
2024-2027		16	Biochemistry	1	5	Theory (Lecture/Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Describe the structure, types, and functions of collagenand explain their roles in maintaining the mechanical strength and elasticity of muscle connective tissue.	1	Lippincott 9th edition	Dr Sadia Khalil
2024-2025		16	Biochemistry	1	6	Theory (Lecture/Tutorial)	Biochemistry and StructuralBasis of Muscle Function and Integrity	CFII-B-001	Describe the structure, types, and functions of collagenand explain their roles in maintaining the mechanical strength and elasticity of muscle connective tissue.	1	Lippincott 9th edition	Dr Sadia Khalil
2024-2025		16	General Pathology & Microbiology	1	1	Tutorial	Gram positive rods	CFII-MIC-006	Actinomyces	1	Levinson 19th Edition	Demonstrator

2024-2026		16	Holy Quran	1	1	Theory (Lecture/Tutorial)	define tawheed		tawheed	1	notes	Ms. Amna
2024-2027		16	Islamiyat	1	1	Theory (Lecture/Tutorial)	Philosophy of prayer		brief discussion on prayer	1	notes	Ms. Amna
2024-2028		16	Islamiyat	1	2	Theory (Lecture/Tutorial)	prayer role for soul		its role for purification of soul	1	notes	Ms. Amna
2024-2029		16	Pak Studies	1	1	Theory (Lecture/Tutorial)	silent features of Pakistan		pakistan movement	1	notes	Ms. Amna
2024-2025		16	Pak Studies	1	2	Theory (Lecture/Tutorial)	silent features of Pakistan		brief silent feature of pakistan movement	1	notes	Ms Amna

Operational Definitions

Traditional & Innovative Teaching Methodologies

Sr.	Pedagogical Methodologies	Description
1.	Lectures	Traditional method where an instructor presents information to a large group of students (large group teaching). This approach focuses on delivering theoretical knowledge and foundational concepts. It is very effective for introducing new topics.
2.	Tutorial	Tutorials involve small group discussion (SGD) where students receive focused instruction and guidance on specific topics.
3	Demonstrations	Demonstrations are practical displays of techniques or procedures, often used to illustrate complex concepts or practices, particularly useful in dental education for showing clinical skills.
4	Practicals	Hands-on sessions where students apply theoretical knowledge to real-world tasks. This might include lab work, clinical procedures, or simulations. Practicals are crucial for developing technical skills and understanding the application of concepts in practice.
5.	Student Presentations	Students prepare and deliver presentations on assigned topics. This method enhances communication skills, encourages students to explore topic in-depth. It also provides opportunities for peer feedback and discussion.
6.	Assignment	Tasks given to students to complete outside of class. Assignments can include research papers, case studies, or practical reports. They are designed to reinforce learning, assess understanding, and develop critical thinking and problem-solving skills.
7.	Self-directed Learning	Students take initiative and responsibility for their own learning process. Students are encouraged to seek resources, set goals, and evaluate their progress. This is a learner-centered approach where students take the initiative to plan, execute, and assess their own learning activities. This method promotes independence, critical thinking, and lifelong learning skills.

8.	Flipped Classroom	In this model, students first engage with learning materials at home (e.g., through videos, readings) and then use class time for interactive activities, discussions, or problem-solving exercises. This approach aims to maximize in-class engagement and application of knowledge.
9.	Peer-Assisted Learning (PAL)	A collaborative learning approach where students help each other understand course material. PAL involves structured peer tutoring, study groups, or collaborative tasks. It enhances comprehension through teaching, reinforces learning, and builds teamwork skills.
10.	Team-based Learning (TBL)	A structured form of small group learning where students work in teams on application-based tasks and problems. Teams are responsible for achieving learning objectives through collaborative efforts, promoting accountability, and deeper understanding of the material.
11.	Problem-based Learning (PBL)	Students work on complex, real-world problems without predefined solutions. They research, discuss, and apply knowledge to develop solutions. PBL fosters critical thinking, problem-solving skills, and the ability to integrate knowledge from various disciplines.
12.	Academic Portfolios	A collection of student's work that showcases learning achievements, reflections, and progress over time. Portfolios include assignments, projects, and self-assessments. They provide a comprehensive view of student development, highlight strengths and areas for improvement, and support reflective learning (experiential learning)
13.	Seminar	A seminar is an academic or professional setting where individuals discuss, present, and explore specific topics, often with expert guidance

AVICENNA MEDICAL & DENTAL COLLEGE

Internal Assessment Policy

Introduction

This policy outlines the guidelines for internal assessment of students at Avicenna Medical and Dental College. Internal assessment plays a crucial role in evaluating a student's progress, understanding their strengths and weaknesses, and providing timely feedback. This policy aims to ensure fairness, consistency, and transparency in the internal assessment process.

Internal Assessment Components

The internal assessment for each course will be comprised of the following components:

1. Attendance

- Attendance will be recorded regularly and will contribute to the overall internal assessment score.
- Students are expected to maintain a minimum attendance of 75% to be eligible for internal assessment marks.

2. Continuous Assessment

- Continuous assessment will be based on regular assignments, quizzes, presentations, and other activities conducted throughout the semester.
- These assessments will evaluate students' understanding of the course material, their critical thinking skills, and their ability to apply knowledge to real-world scenarios.

3. Grand Test and Module Exams

- Grand tests and module exams will be conducted to assess students' comprehensive understanding of the course content.
- These exams will be designed to evaluate both theoretical knowledge and practical skills.

4. Attitude and Behavior

- Students' attitude towards learning, participation in class activities, and adherence to college rules and regulations will be assessed.
- This component will evaluate students' professionalism, teamwork skills, and ethical conduct.

5. Logbook and Portfolio

- Students will be required to maintain a logbook and portfolio to document their learning journey.
- The logbook will include reflections on lectures, tutorials, and practical sessions.
- The portfolio will showcase students' best work, including assignments, projects, and research papers.

Assessment Criteria and Weighting

The following table outlines the weighting of each component in the internal assessment:

Component	Marks	Percentage
Attendance	6	2%
Continuous Assessment	12	4%
Grand Test and Module Exams	30	10%
Attitude and Behavior	10	3%
Logbook and Portfolio	2	1%
Total	60	20%

Assessment Procedures

- Faculty Responsibility: Faculty members will be responsible for designing and administering the internal assessments in accordance with the course syllabus and this policy.
- Marking and Grading: Faculty members will mark and grade the assessments using a transparent and consistent marking scheme. Candidates shall be required to score at least 50% marks in the internal assessment in each subject to become eligible for admission to professional examinations.
- Feedback: Faculty members will provide timely and constructive feedback to students on their performance.
- Record-Keeping: Faculty members will maintain accurate records of all internal assessments, including marks and feedback.
- Moderation: Internal assessments will be moderated by the course coordinator or the head of the department to ensure fairness and consistency.

Appeal Process

Students who have concerns about their internal assessment marks may appeal to the concerned faculty member or the head of the department. The appeal process will be handled promptly and fairly.

The internal assessment policy is designed to promote student learning, assess their progress, and provide a fair and transparent evaluation system. Faculty members and students are expected to adhere to this policy to ensure the integrity of the internal assessment process.

Attendance Requirement & Internal Assessment Criteria

The institution follows the regulations for examinations of the UHS in letter and spirit. The students require **75% attendance** in all academic sessions and **50% passing marks** with internal assessments and send-up examinations to be eligible for the UHS Professional Examinations.

Assessment Guidelines

Assessment in medical & dental education is a critical component designed to ensure that medical & dental students acquire the necessary knowledge, skills, and competencies required for effective medical & dental practice.

Assessment drives learning! – George E. Millar

You will encounter a variety of assessment methods, each serving a specific purpose.

- Written examinations, including multiple-choice and essay questions, will test your grasp of theoretical concepts and subject matter.
- Practical assessments will require you to demonstrate your clinical skills and ability to apply knowledge in real-world scenarios.
- Clinical exams will evaluate your communication skills and reasoning abilities through case discussions and problem-solving exercises.
- Clinical skills and work-place based assessments will observe your hands-on proficiency and patient management capabilities.

At Avicenna Medical & Dental College, internal assessments are systematically conducted throughout each academic year of the MBBS program, as per the guidelines established by the University of Health Sciences (UHS). These assessments, overseen by the Assessment Cell, adhere to either the Annual Subject-Based System or the Integrated/Modular System, depending on the curriculum structure.

Notably, beginning with the 2024-25 academic year, the weightage of internal assessments will be increased from 10% to 20%. The UHS administers professional examinations independently, organizing them at designated neutral sites and appointing external examiners to ensure objectivity and fairness.

Internal Assessment Weightage	20%	100%
External Assessment Weightage	80%	

Assessment Schedule

Avicenna Dental College 1st Year BDS Integrated (D24) - Session 2024-2025					
WEEK	**DATE**	**DAY**	**SUBJECT**	**TEST**	**TOPIC / CODE**
Commencement of Classes: 14th April 2025 Monday					
COMMENCEMENT OF MODULE - 1					
1	**14th & 15th April Orientation Day**				
3	**Labour day** **1st May 2025, Thursday**				
3	**2nd May 2025**	**Friday**	**(Oral Biology)** **(Pathology)** **(Behavi.Science)** **(Anatomy)**	GRAND TEST - 1	**Oral Biology:** F-OB-001 / F-OB-001 **Pathology** Cell Injury F-Pa 001 / F-Pa 002 / F-Pa 003 / F-Pa 004 / F-Pa 005 / F-Pa 006 / F-Pa 007 / F-Pa-008 **Behavi.Science:** F-Bhs-001 / F-Bhs-002 / F-Bhs-003 / F-Bhs-004 / F-Bhs-005 **Anatomy:** F-A-001 / F-A-002 / F-A-006 / CF1-A-001 / CF1-A-002
4	**Day off due to precautionary security measures**				
5	**16th May 2025**	**Friday**	**(Biochemistry)** **(Physiology)** **(Pathology)** **(Pharmacology)**	GRAND TEST - 2	**Biochemistry:** F-B-001 / F-B-002 / 003 / 007 / 008 / 005 / 006 **Physiology:** F-P-001 / F-P-002 / F-P-003 / F-P-004 / F-P-005 / F-P-006 (Plasma proteins only) **Pathology:** F-Pa 010 / F-Pa 011 / F-Pa 012 **Pharmacology:** F-PH-001& 002 / F-PH-003& 005 / F-PH-004& 007 / F-PH-008& 006 Pharmacokinetics and pharmacodynamics

6	**23rd May 2025**	**Friday**	**(Anatomy)** **(Biochemistry)** **(Oral Biology)** **(Community Dentistry)**	GRAND TEST - 3	**Anatomy:** F-A-003 / F-A-004 / F-A-005 / F-A-006 / F-A-007 / CF1-A-003 **Biochemistry:** Insert here F-B-005 / F-B-006 F-B-009,010,012 **Oral Biology:** F-OB-002 / F-OB-006 **Community Dentistry:** Car1-CD-001 / Car1-CD-002 / Car1-CD-003
7	**Youme Takbeer** **28th May (Wednesday)**				
COMMENCEMENT OF MODULE - 2					
8	**2nd June 2025**	**Monday**	Anatomy Physiology Biochemistry Oral Biology & Tooth Morphology General Pathology & Microbiology Pharmacology Community Dentistry	**Module - 1 Exam**	Complete Module - 1 Syllabus
Eid-ul-Adha 6th / 7th / 8th & 9th June 2025					
9	**13th June 2025**	**Friday**	Anatomy Oral Biology & Tooth Morphology General Pathology & Microbiology	**Module - 2 Exam**	Complete Module - 2 Syllabus
COMMENCEMENT OF MODULE - 3					
12	**4th July 2025**	**Friday**	Oral Biology & Tooth Morphology Biochemistry Community	**Module - 3 Exam**	Complete Module - 3 Syllabus

			Dentistry Oral Pathology Operative Dentistry		
Ashura 5th & 6th July 2025					
COMMENCEMENT OF MODULE - 4					
14	**14th July 2025**	**Monday**	Anatomy Physiology Biochemistry Oral Biology & Tooth Morphology General Pathology & Microbiology Pharmacology Community Dentistry Oral Pathology Operative Dentistry	**Block 1 Exam (Theory)**	Complete Block 1 Syllabus
14	**15th July 2025**	**Tuesday**		**Block 1 Exam (Practical)**	Complete Block 1 Syllabus
Summer Break 21st July 2025 to 17th August					
16	**29th August 2025**	**Friday**	Oral Biology & Tooth Morphology Anatomy Biochemistry General Pathology & Microbiology Pharmacology Physiology	**Module - 4 Exam**	Complete Module - 4 Syllabus
COMMENCEMENT OF MODULE - 5					
22	**10th October 2025**	**Friday**	Physiology Anatomy Biochemistry Pharmacology General Pathology & Microbiology	**Module - 5 Exam**	Complete Module - 5 Syllabus
COMMENCEMENT OF MODULE - 6					

24	**24th October 2025**	**Friday**	Oral Biology & Tooth Morphology Community Dentistry Dental Radiology (Oral Diagnosis/Oral Medicine) Periodontology General Pathology & Microbiology	**Module - 6 Exam**	Complete Module - 6 Syllabus
COMMENCEMENT OF MODULE - 7					
25	**27th October 2025**	**Monday**	Oral Biology & Tooth Morphology Anatomy Biochemistry General Pathology & Microbiology Pharmacology Physiology Community Dentistry Dental Radiology (Oral Diagnosis/Oral Medicine) Periodontology	**Block 2 Exam (Theory)**	Complete Block 2 Syllabus
25	**28th October 2025**	**Tuesday**		**Block 2 Exam (Practical)**	Complete Block 2 Syllabus
29	**28th November 2025**	**Friday**	Anatomy Biochemistry Physiology General Pathology & Microbiology Pharmacology	**Module - 7 Exam**	Complete Module - 7 Syllabus
COMMENCEMENT OF MODULE - 8					
Winter Break / Quaid E Azam Day 22nd To 26th December 2025					

33	**2nd January 2025**	**Friday**	Anatomy Oral Biology & Tooth Morphology Physiology Biochemistry Pharmacology General Pathology & Microbiology Oral Pathology Community Dentistry	**Module - 8 Exam**	Complete Module - 8 Syllabus
COMMENCEMENT OF MODULE - 9					
35	**16th January 2025**	**Friday**	Oral Biology & Tooth Morphology	**Module - 9 Exam**	Complete Module - 9 Syllabus
36	**19th January 2025**	**Monday**	Anatomy Biochemistry Physiology General Pathology & Microbiology Pharmacology Oral Biology & Tooth Morphology Oral Pathology Community Dentistry	**Block 3 Exam (Theory)**	Complete Block 3 Syllabus
	20th January 2025	**Tuesday**		**Block 3 Exam (Practical)**	Complete Block 3 Syllabus
	23rd January 2025	**Friday**	Islamiat / Pak. Study	**Send Up Islamiat / Pak. Study**	Complete Syllabus
	26th January 2025	**Monday**	Anatomy Physiology Biochemistry Oral Biology & Tooth Morphology General Pathology & Microbiology Pharmacology Community Dentistry Oral Pathology Operative Dentistry	**SENDUP Block 1**	**Block 1** Complete Syllabus

	28th January 2025	**Wednesday**	Anatomy Physiology Biochemistry Oral Biology & Tooth Morphology General Pathology & Microbiology Pharmacology Community Dentistry Oral Pathology Operative Dentistry	**Send Up Block 1 (Practical)**	**Block 1** Complete Syllabus
	30th January 2025	**Friday**	Oral Biology & Tooth Morphology Anatomy Biochemistry General Pathology & Microbiology Pharmacology Physiology Community Dentistry Dental Radiology (Oral Diagnosis/Oral Medicine) Periodontology	**SEND UP Block 2**	**Block 2** Complete Syllabus
	2nd February 2025	**Monday**	Oral Biology & Tooth Morphology Anatomy Biochemistry General Pathology & Microbiology Pharmacology Physiology Community Dentistry Dental Radiology (Oral Diagnosis/Oral Medicine) Periodontology	**Send Up Block 2 (Practical)**	**Block 2** Complete Syllabus
	4th February 2025	**Wednesday**	Anatomy Biochemistry Physiology General Pathology & Microbiology	**Send Up Block 3**	**Block 3** Complete Syllabus

			Pharmacology Oral Biology & Tooth Morphology Oral Pathology Community Dentistry		
	6th February 2025	**Friday**	Anatomy Biochemistry Physiology General Pathology & Microbiology Pharmacology Oral Biology & Tooth Morphology Oral Pathology Community Dentistry	**Send Up Block 3 (Practical)**	**Block 3** Complete Syllabus

Table of Specification

BDS Integrated Curriculum 2K25, 1st Professional Exam							
BLOCK 2 – ASSESSMENT PARAMETERS AND DIVISION OF MARKS							
Subject	**Written Exam**			**Oral/Practical Exam**			
	MCQ (1 mark and I minute each)	**SEQ** (4 marks each and 11 minutes for each SEQ)	**Marks**	**OSPE** (9 Marks Each and 6 minutes each)	**OSCE** (9 Marks Each and 6 minutes each)	**OSVE** (6 Marks Each and 6 minutes each)	**Marks**
Anatomy	18	2	**26**	1	0	1	**15**
Physiology	14	2	**22**	0	1	1	**15**
Biochemistry	6	1	**10**	0	0	1	**6**
Oral Biology	14	2	**22**	2	0	1	**24**
General Pathology & Microbiology	12	1	**16**	1	0	1	**15**
Pharmacology	9	1	**13**	0	0	1	**6**
Community Dentistry/ Dental Radiology	3	0	**3**	1	1	1	**24**
Oral Pathology-Periodontology	4	1	**8**	1	0	1	**15**
Total Questions	**80**	**10**		**6**	**2**	**8**	
Net Total	**80x1=80**	**10x4=40**	**120**	**6x9=54**	**2x9=18**	**8x6=48**	**120**
Internal Assessment Marks*	**30**			**30**			
Grand Total	**150**			**150**			

Table of Specification

Block 2 Internal Assessment for Theory Examination – 30 Marks		
Scoring Parameter	**Percentage Allocation**	**Marks Allocation**
Attendance in lectures*	20%	6
Block Examination (Theory)	50%	15
Continuous Assessment (Class Tests, Mock Exam, Assignments, Attitudes)	30%	9
Total	**100%**	**30**
* Attendance Marks will be according to the following criteria: 1. if 85 % = Eligible 2. if > 90% ≤ 93 % = 3 marks 3. if > 93% ≤ 95 % = 5 marks 3. if > 95% = 6 marks		
Block 2 Internal Assessment for Practical/ Tutorials Examination – 30 Marks		
Scoring Parameter	**Percentage Allocation**	**Marks Allocation**
Attendance in Practicals/ Tutorials*	20%	6
Block Examination (Practical/ Oral Examination)	50%	15
Continuous Assessment/ Log Books-Portfolio for PRISME / Practical Notebooks/ Assignments / Attitudes	30%	9
Total	**100%**	**30**
* Attendance Marks will be according to the following criteria 1. if 85 % = Eligible 2. if > 90% ≤ 93 % = 3 marks 3. if > 93% ≤ 95 % = 5 marks 3. if > 95% = 6 marks		

Block 2: Learning Resources

Subject	Learning Resources
Physiology	1. Guyton & Hall. Textbook of Medical Physiology (14th ed.).
Anatomy	1. Snell's: Neuroanatomy 2. General Anatomy by Laiq Hussain Siddiqui
Histology	1. Medical Histology: Text and Atlas by Laiq Hussain Siddiqui
Biochemistry	1. Harper's Illustrated Biochemistry (32nd ed.) by Rodwell et al. 2. Lippincott Illustrated Reviews: Biochemistry (8th ed.) by Abali et al.
Pathology & Microbiology	1. Robbins & Cotran Pathologic Basis of Disease 2. Review of Medical Microbiology and Immunology by Levinson
Behavioral Sciences	1. Hand book of Behavioral sciences, by MH Rana, 3rd ed. 2. Humayun A., Herbert M. (2010). Integrating behavioural sciences in healthcare. Islamabad: HEC.

Subject	Learning Resources
Oral Biology & Tooth Morphology	1. Nanci, A. Ten Cate's Oral Histology, Development, Structure, and Function (10th ed.) 2. Berkovitz, B. K., Holland, G. R., & Moxham, B. J. Oral Anatomy, Histology, and Embryology (5th ed.) 3. Kumar, G. S. Orban's Oral Histology & Embryology (13th ed.) 4. Rajkumar, K. Oral Anatomy, Histology, Physiology & Tooth Morphology (2nd ed.)
Gross Anatomy	1. Snell's Clinical Anatomy by Regions (12th ed.)
Physiology	1. Guyton & Hall. Textbook of Medical Physiology (14th ed.)
Biochemistry	1. Harper's Illustrated Biochemistry (32nd ed.) by Rodwell et al. 2. Lippincott Illustrated Reviews: Biochemistry (8th ed.) by Abali et al.
Microbiology	1. Levinson, W. Review of Medical Microbiology and Immunology (16th ed.)
Pharmacology	1. Vanderah, T. W. Katzung's Basic & Clinical Pharmacology (16th ed.)
Behavioral Sciences	1. Hand book of Behavioral sciences, by MH Rana, 3rd ed. 2. Humayun A., Herbert M. (2010). Integrating behavioural sciences in healthcare. Islamabad: HEC.

Subject	Learning Resources
Oral Biology & Tooth Morphology	1. Nanci, A. Ten Cate's Oral Histology, Development, Structure, and Function (10th ed.) 2. Berkovitz, B. K., Holland, G. R., & Moxham, B. J. Oral Anatomy, Histology, and Embryology (5th ed.) 3. Orban's Oral Histology & Embryology (13th ed.) 4. Rajkumar, K. Oral Anatomy, Histology, Physiology & Tooth Morphology (2nd ed.)

About Avicenna Medical College

Avicenna Medical & Dental College is a purpose-built, fully equipped institution with experienced and excellence-driven faculty to train high-quality dental professionals in Pakistan.

Avicenna Medical & Dental College runs under the umbrella of Abdul Waheed Trust. Abdul Wahid Trust is a non-profit social welfare organization and registered under the Societies Act with the Registrar of Societies. The Trust is legalized through a Trust Deed that bears necessary rectifications. The Trust Deed is further supported by its Memorandum and Article of Association that authorizes the establishment and operation of the Medical College, the Dental College, the Nursing College, the Allied Health Sciences College, and other activities in the healthcare sector.

In 2009, Avicenna Medical & Dental College was recognized by the Pakistan Medical & Dental Council. With the advent of advanced tools and technology in every field of health science, medicine today has shot up to the greater end of the gamut with superior choice and promises in medical therapy in the very vicinity of the common man. AVMDC promises to be one such neighborhood.

Infrastructure Resources

Sr.	Infrastructure Resources	Description
1.	Lecture Hall	Each year has a dedicated lecture hall, totaling five lecture halls for the five professional years. These halls are equipped with modern audiovisual aids to support effective teaching and learning.
2.	Tutorial Room	The college's tutorial rooms, each with a capacity of 30, are specifically designed to support small group discussions and interactive sessions. These rooms facilitate personalized instruction, enabling more engaged and effective learning through direct interaction between students and instructors.
3.	Lab	The college is equipped with state-of-the-art laboratories for practical and clinical work. Each lab is designed to support various disciplines, to facilitate hands-on learning.
4.	Library on campus	A huge library occupies a full floor and has 260 seats including study carrels and group-discussion tables. Latest reference books of Basic and Clinical Sciences along with national & international journals are available in the library.
5.	Digital Library	The digital library offers access to a vast collection of e-books, online journals, research databases, and other digital resources. It supports remote access and provides tools for academic research and learning.
6.	Learning Management System (LMS)	The LMS is a comprehensive online platform that supports course management, content delivery, student assessment, and communication. It provides tools for tracking progress, managing assignments, and facilitates ongoing academic activities.

6.	Phantom Labs	Specialized Phantom Labs are available for advanced simulation and practice in dental procedures. These labs provide high-fidelity models and simulators that help students refine their clinical skills in a controlled environment.
7.	Mess & Cafeteria	The College has its own on-campus Mess which caters to 600 students. All food items including dairy, meat, and vegetables are sourced organically and bought in at the time of cooking, in order to ensure that students get freshly cooked meals at all times Students form the Mess committee which decides the mess menu in consultation with other students. The Mess offers fresh food to all residents three times a day. However, day scholars are also welcome to use the Mess facility at a reasonable cost. Two 50- inch LCD screens provide students an opportunity to get entertained during their meal times.
8.	Gymnasium & Sports	We recognize sports as a pivotal key to shape and maintain students' personality and good health. The College has indoor and outdoor sports facilities to help enhance the cognition and capacity to learn. There is a proper sports section for various games like basketball, football, volleyball, and cricket. The gym itself is fully equipped with modern machinery both for students and faculty.
9.	IT Lab	The IT Lab is equipped with modern computers and software available for students who need access for academic purposes.
10.	Auditorium	The college has a spacious auditorium equipped with advanced audio-visual facilities. It is used for large-scale lectures, guest presentations, and academic conferences, providing a venue for students to engage with experts and participate in important educational events.
11.	Examination Halls	The college provides dedicated examination halls that are designed to accommodate a large number of students comfortably. These halls are equipped with necessary facilities to ensure a smooth and secure examination process, including proper seating arrangements, monitoring systems, and accessibility features.

7-Star Doctor Competencies (PMDC)

According to national regulatory authority PMDC, a Pakistani medical/dental graduate who has attained the status of a 'seven-star doctor' is expected to demonstrate a variety of attributes within each competency. These qualities/ generic competencies are considered essential and must be exhibited by the individual professionally and personally.

1. Skillful / Care Provider.
2. Knowledgeable / Decision Maker.
3. Community Health Promoter / Community Leader.
4. Critical Thinker / Communicator
5. Professional / Lifelong learner.
6. Scholar / Researcher
7. Leader/ Role Model / Manager

Message from the Principal

As a Co-Founder and Co-Chairperson, I have been involved in planning, construction and accreditation of Avicenna Medical College by the Pakistan Medical and Dental Council (PM&DC) and its affiliation with the esteemed University of Health Sciences (UHS). It is a pleasure to see Avicenna Medical College develop, progress and achieve maximum academic excellence in a short period since its inception in 2009. The institution has lived up to its mission of training and producing medical graduates of international standards. Three batches have passed out as Doctors, who currently are serving in the country and abroad while several have opted for post-graduation and are on road to progress. We have achieved several milestones since 2009 including the recognition of our College for FCPS training by College of Physicians and Surgeons of Pakistan (CPSP), establishment of College of Nursing and Avicenna Dental College.

Principal
Prof. Dr. Gulfreen Waheed
MBBS, FCPS, MHPE, PhD Scholar - HPE
Avicenna Medical & Dental College

Message from the Chairman

The Avicenna Medical & Dental College is a project of Abdul Waheed Trust which is a Non-profitable, Non-governmental, Non -political & Social organization, working for the welfare of Humanity and based on Community empowerment. Avicenna Medical College has its own 530 bedded Avicenna teaching Hospital (Not for Profit hospital) within the College Campus & 120 bedded Aadil Hospital, at 15 minutes' distance. Separate comfortable hostels for boys & girls are provided on the campus.

Our students benefit from the state of the art College Library with facilities of Internet & online Journals that remain open 15 hours a day, for our students & faculty members. I am particularly pleased with the hard work by the Faculty and Students in the achievement of historic 100% results for all the classes. It is a rare achievement and speaks of dedication of the Faculty and Staff. Our motto is Goodness prevails and we aim at producing Doctors' who are knowledgeable, competent in clinical skills and ethical values.

Avicenna Medical College & Hospital was founded to provide quality health care services to the deserving patients belonging to the rural areas near Avicenna Hospital as well as to provide quality medical education of international standard to our students. The Hospital provides all medical services and Lab diagnostics to the local population at minimal cost. So far by the grace of Allah Almighty the number of patients being treated and operated upon at our Hospital is increasing every day as there is no other public or charity hospital in the circumference of 20km. We have already established two Satellite Clinics in the periphery which are providing outdoor care while admission cases are brought to the Hospital in Hospital transport.

Following the success of our reputable Medical College and Hospital, we were able to successfully establish Avicenna Dental College which is recognized by the Pakistan medical & Dental Council & University of Health Sciences. To date, we have enrolled five batches in our dental college and we aim to achieve the same level of success for our dental students as our medical students.

Chairman
Abdul Waheed Sheikh
Avicenna Medical & Dental College

Avicenna Medical & Dental College

Vision

The vision of **Avicenna Medical & Dental College** is to become a college that thrives to achieve improvement in healthcare of masses through creative delivery of educational programs, innovative research, commitment to public service and community engagement in a environment that supports diversity, inclusion, creative thinking, social accountability, life-long learning and respect for all.

Mission

The mission of **Avicenna Medical and Dental College** is to educate and produce competent, research oriented healthcare professionals with professional commitment and passion for life-long learning from a group of motivated students through quality education, research and service delivery for the improvement of health status of the general population.