AVICENNA
DENTAL COLLEGE

STUDY GUIDE

2023-2024



Program: Bachelor of Dental Surgery
Year: 4th Professional Year
Subject: Orthodontics
Batch No: D20
Session: 2023-2024

Department of Dental Education

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Introduction to 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 Medical & 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 Dental 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 Dental 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.

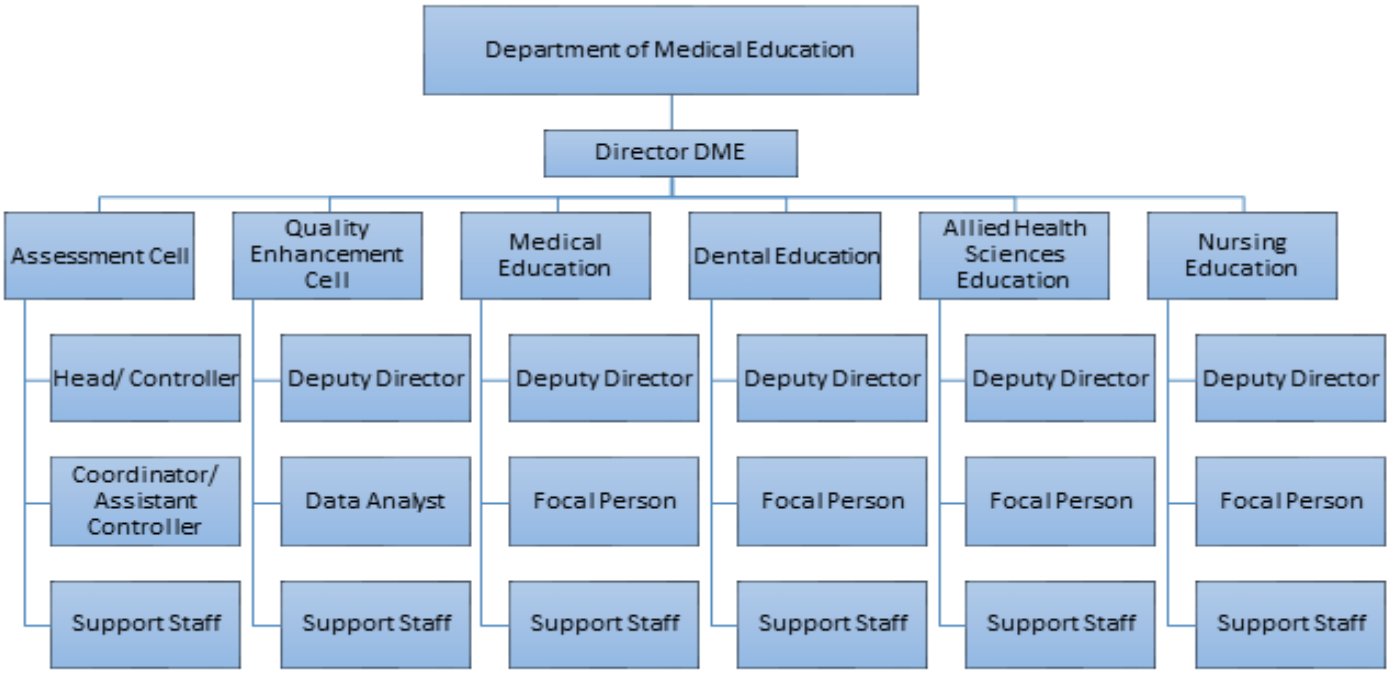
This guide, meticulously developed in collaboration with your subject departments, is designed to support your academic journey and help you achieve excellence in accordance with the highest standards set by PMDC and HEC.

DEPARTMENT OF MEDICAL EDUCATION

The Department of Medical Education (DME) serves as a cornerstone in delivering effective and high-quality education to both undergraduate and postgraduate medical and dental students. The DME is integral to the implementation and adoption of the latest curriculum provided by UHS and is responsible for organizing and managing related academic activities.

The DME will oversee the spirals of PERLs and C-FRC and monitor students' portfolio development and logbook completion. Additionally, the department is developing a mentoring platform and plans to initiate faculty development training which will focus on mentorship, reflective writing, and portfolio development skills. DME has a duty to collaborate with other disciplines to ensure that AVMDC students are not only competent in their respective fields but also well-trained in affective domains such as professionalism, ethics, research, and leadership.

A key responsibility of the DME is to plan and implement an effective training competency acquisition framework in collaboration with the academic council.



General Responsibilities of DME include:

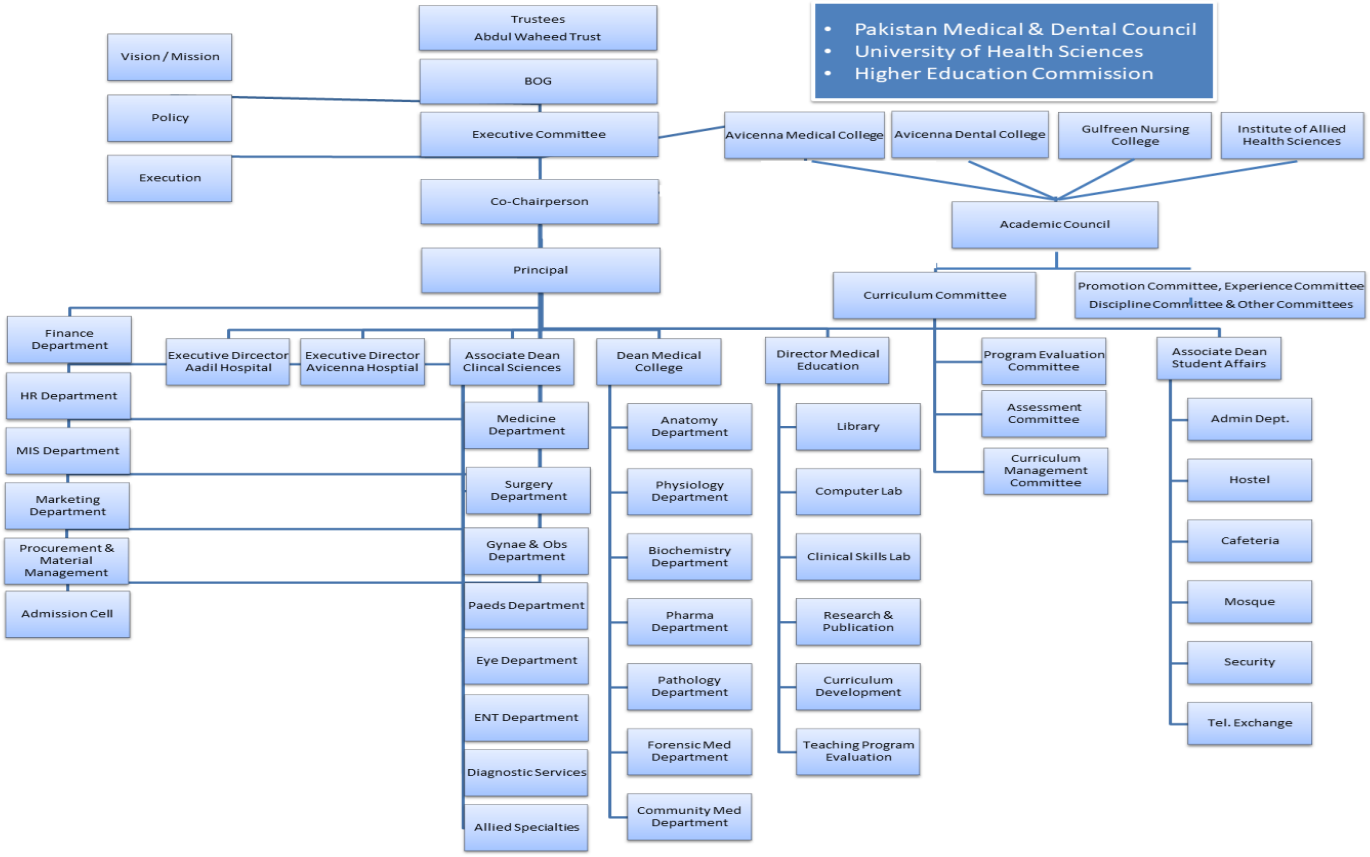
- Contribute and design, train the trainer activities which fulfill the need for undergraduate and postgraduate training.
- Shape and develop medical education research activities of the college.
- Facilitating & organizing workshops, seminars, symposia & conferences.
- Conducting CME activities to leverage culture of awareness, journal club.
- Networking by representing the college, when needed, in national /international meetings or conferences.
- Student counseling.
- Supervising students' academic progress.
- Academic Committees Development and Support.
- Staff Support and Development.
- Curriculum development and reform.

- Collaborate with curriculum committee and faculty members to develop quality instructional material such as modules, lecture, or study guides.
- Standard Operating Procedures for DME development.
- Skill lab management.
- Assessment analysis which includes blue printing, pre-exam review, item analysis and standard setting and provides feedback to concerned faculty and students on the learning outcome achievement.
- Develop and conduct periodical review of process of the program, learning and teaching activities, and assessment process.
- Identify opportunities for use of IT in teaching and learning, assessment and faculty development activities.
- Exam Cell management.
- Quality Assurance Cell management.
- Record keeping of departmental data.
- Leadership and management.
- Participation in overall planning and management of teaching in liaison with the departments.

Faculty	**Department**
Director Medical Education	Dr. Gulfreen Waheed
Assistant Professor Medical Education	Dr. Saman Fatima
Coordinator Medical Education	Dr. Javaid Shabkhaiz Rab
Deputy Director / Demonstrator Dental Education	Dr. Salar Arsalan
Deputy Director / Demonstrator Allied Health Sciences Education	Dr. Talha Hassan
Deputy Director / Demonstrator Nursing Education	Dr. Muneeba Azhar

Avicenna Medical & Dental College Overview

Institutional Organogram



Vision & Mission

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.

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



Message from the Principal

Prof. Dr. Sohail Abbas Khan
Principal Dental College
MDS, Dip Op (Hons) BDS



It is a matter of immense honor and privilege as the first Principal of Avicenna Dental College to welcome you to one of the finest dental institutes in the private sector of Pakistan. Avicenna Dental College is a private dental college, which aims to provide the finest dental education to dental undergraduate students in accordance with the latest trends in Dental Education, and to develop them to practice dentistry in the 21st century.

While educating dental students to become licensed, empathetic and competent professionals, Avicenna Dental College endeavors to educate students in a supportive environment in which they provide dental care for a diverse populace. In the times to come, we wish to transform our graduates into unfeigned teachers, researchers and consultants by starting post-graduation programs as well.

Avicenna Dental College aims to achieve an enterprising curriculum integrating the basic sciences with clinical experience while utilizing modern technological modalities.

In addition to the production of outstanding oral health professionals, we at Avicenna Dental College recognize our responsibility as a private dental institution to the citizens of the country in making the provision of oral health care available to those who are deprived of ready access.

I feel proud to lead this dental establishment such an inspiring time and hope all of you at Avicenna Dental College will share this pride and play your respective roles in materializing the dream of making this institution the premier dental educator in Pakistan



Message from the Vice Principal

Prof. Dr. Usman Muneer
Vice Principal Dental College
BDS, FCPS

It is a matter of great privilege to be associated with Avicenna Dental College. Our institution boasts of renowned, well-qualified and devoted faculty members in each and every specialty of dentistry. We are looking forward to diligently equipping our undergraduates with comprehensive artistic and ethical oral health care.

Our goal is to inspire a lifelong passion for learning and innovation in our students, ensuring they are well-prepared to meet the evolving challenges of the dental profession. I look forward to collaborating with our students on this transformative journey, guiding them toward achieving excellence in oral health care.

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



About Avicenna Dental College

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

Avicenna Dental College runs under the umbrella of Abdul Waheed Trust. Abdul Waheed 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 2018, Avicenna Dental College was recognized by the Pakistan Medical & Dental Council. With the advent of advanced tools and technology in every field of health science, dentistry today has shot up to the greater end of the gamut with superior choice and promises in dental therapy in the very vicinity of the common man. ADC promises to be one such neighborhood.



Department & Subject Overview

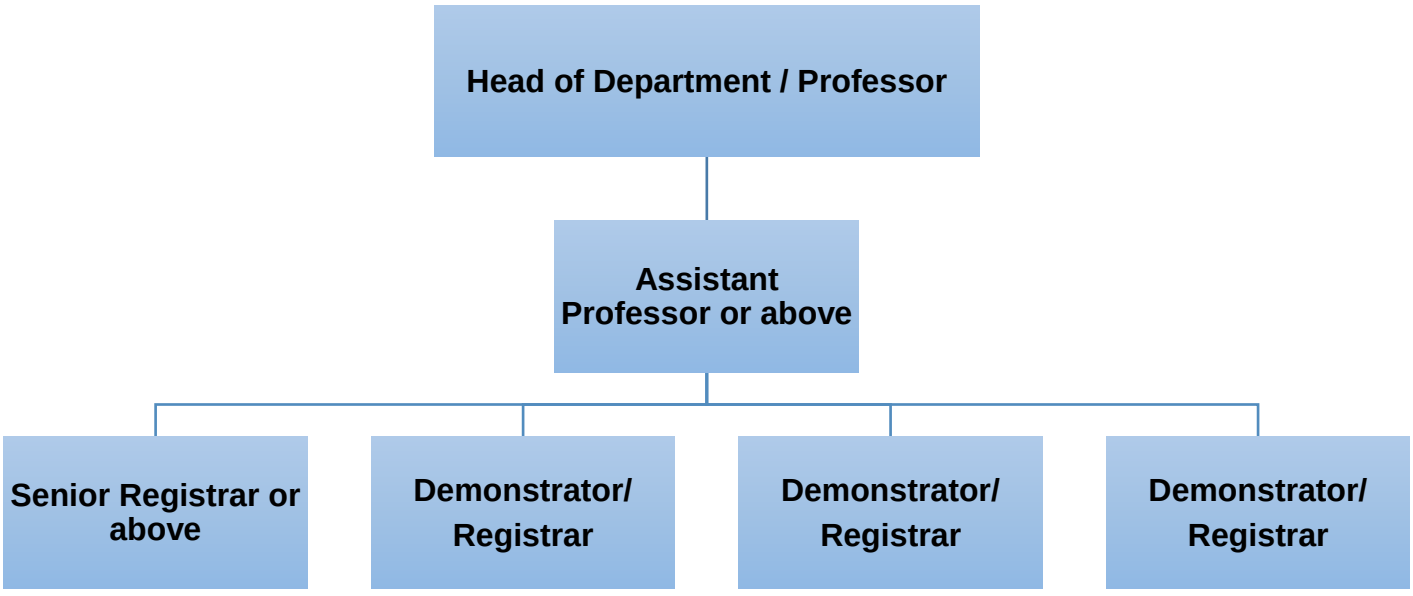
Note from the Head of Department

Department of orthodontics is a state of art department, which is fully equipped with all modern gadgets and accessories. We aim at providing excellent patient care, research, and educational facilities. We have a fully functional orthodontic laboratory, which provides us with all sort of technical support. Our team of well-trained doctors and technical staff strive to provide un-parallel orthodontic treatment to our patients and unsurpassed education to our orthodontic students. We provide state of the art treatment to our patients who present with a broad spectrum of malocclusions and dentofacial deformities. We care for pre-adolescents, adolescents and adult patients having class I, class II, class III malocclusions. Preventive and interceptive protocols along with comprehensive treatment are all delivered at the orthodontic department of Avicenna medical college. Patients of craniofacial anomalies requiring Orthognathic surgery and multidisciplinary approach are also catered well here. In terms of teaching, our goal is to provide an in-depth education on the growth of face, development of dentition and occlusion, diagnosis, interception, and treatment of orthodontic anomalies along with biological and biomechanical principles related to orthodontics aiming at developing and delivering a comprehensive orthodontic health care service and to develop research and service skills.



Prof. Dr. Nadia Bhutta
Professor & Head of Department
Department of Orthodontics

Departmental Organogram (as per PMDC guidelines)



Faculty Members

Name	Designation	Qualification
Prof Dr Nadia Bhutta	Head of Department / Associate Professor	**FCPS ORTHODONTICS BDS**
Dr Anum Aziz	Senior Registrar	**FCPS ORTHODONTICS BDS**
Dr Sadaf Shaheen	Senior Demonstrator	**MCPS , MDS ORTHODONTICS BDS**
Dr Hida Tajasar	Senior Demonstrator	**FCPS TRAINING DONE BDS**
Dr Zainia Tauseef	Demonstrator	**BDS**
Dr S M Hamza Hassan	Demonstrator	**BDS**

Goal of the Department

Dear Students, we are delighted to welcome you to the course of orthodontics. This is a basic course which you will be studying in your fourth year; this guide will inform and update you about the various topics to be covered in both the first and second final year. The topics covered in this module are highly relevant and have clinical implications which will be of great help in your professional life. This subject is one of the very important foundation courses in dentistry and based on these fundamental principles you will progress on to become a good dental surgeon. Hence, the committee suggests you to use this handbook to prepare yourself during the course and gain maximum benefit.



Course Objectives

1. Demonstrate knowledge of general principles and concepts of growth and development

2. Differentiate between normal and abnormal growth and development of dento-facial complex

3. Demonstrate knowledge of standard orthodontic classification of malocclusion and should be able to differentiate skeletal and dental malocclusions.

4. Students should be able to perform basic orthodontic diagnostic procedures like lateral cephalometric tracing and model analysis.

5. Identify functional and esthetic deficiencies requiring intervention and management and know when to make a referral to an orthodontic specialist.

6. Identify predisposing conditions and appropriate intervention and /or active treatment recommendation to prevent malocclusion.

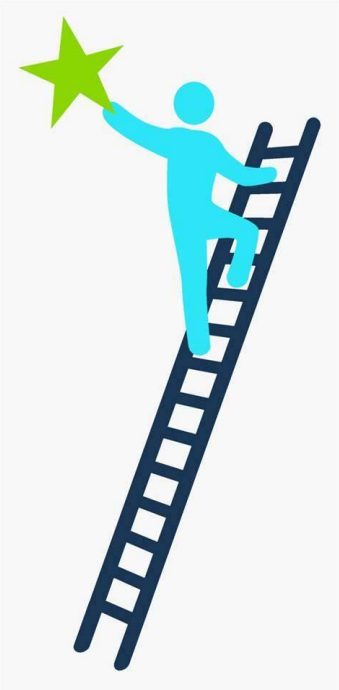
7. Demonstrate the knowledge of adverse effects of orthodontic therapy.

8. Demonstrate the knowledge and skills to manage orthodontic emergencies.

9. Demonstrate the knowledge and skills in management of removable orthodontic appliances

Attendance Requirement & Internal Assessment Criteria

The institution follows the regulations for examinations of the UHS in letter and spirit. The students require **85% attendance** in all academic sessions and **50% marks** in internal assessments and send-up examinations to be eligible for the UHS Professional Examinations.



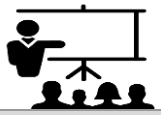
Learning Resources & Pedagogy

Book Recommendations



Sr.	Book Name	Author	Edition
1	CONTEMPORARY ORTHODONTICS	ACKERMANN AND PROFFIT	6TH
2.	LAURA MITCHELL	LAURA MITCHELL	5TH

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.
	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.
3.	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.
4.	Student Presentations	Students prepare and deliver presentations on assigned topics. This method enhances communication skills, encourages students to explore topics in-depth. It also provides opportunities for peer feedback and discussion.
5.	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)



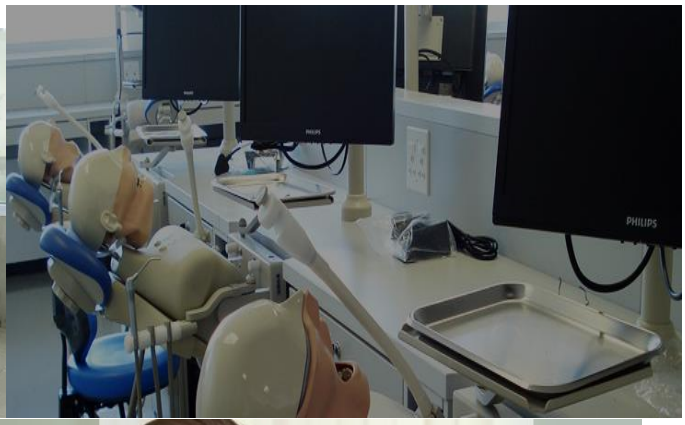
Flipped Classroom

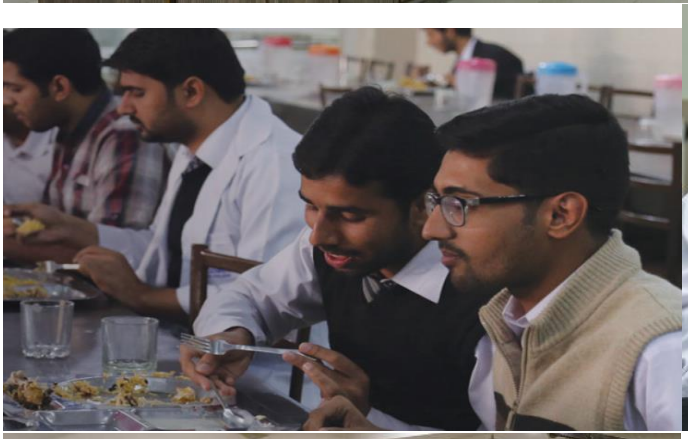
Infrastructure Resources

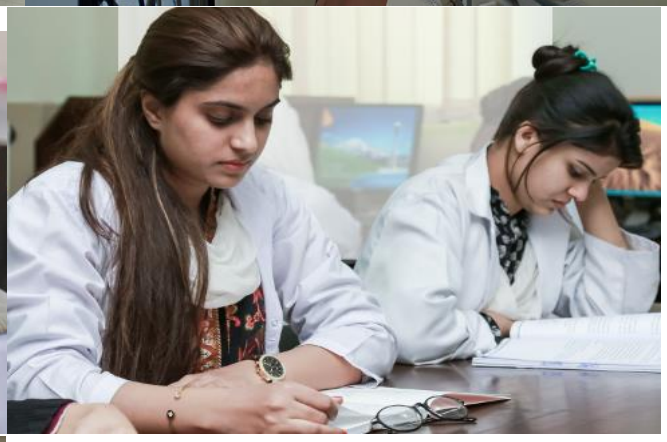
Sr.	Infrastructure Resources	Description
1.	Lecture Hall	Each year has a dedicated lecture hall, totaling four lecture halls for the four professional years. These halls are equipped with modern audiovisual aids to support effective teaching and learning.
2.	Tutorial Room	The college's tutorial rooms, 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 on appliance fabrications, radiographic diagnosis, and cast analysis.
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.
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.









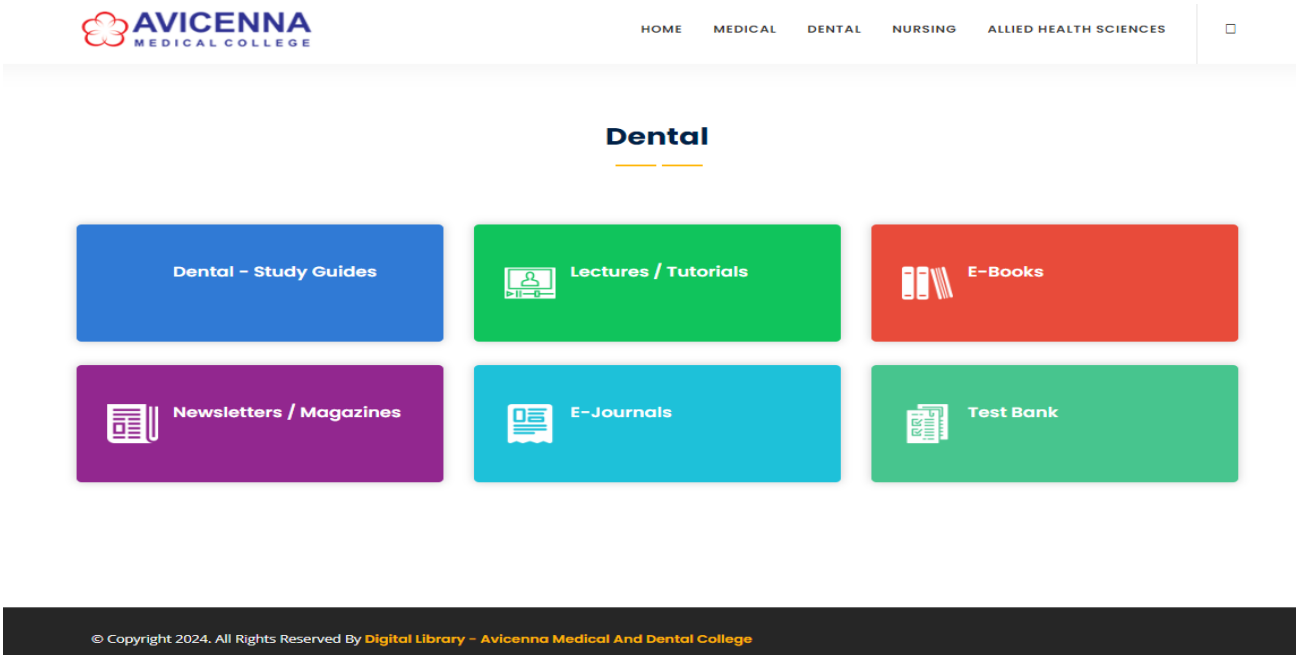




Digital Library & Learning Management System (LMS)

1. The COVID-19 pandemic highlighted the necessity of interactive online teaching for better retention of topics by students. Strategies like online learning management system (LMS), online discussions, online quizzes, assignment design, and flipped learning enhance student engagement in online education when needed.

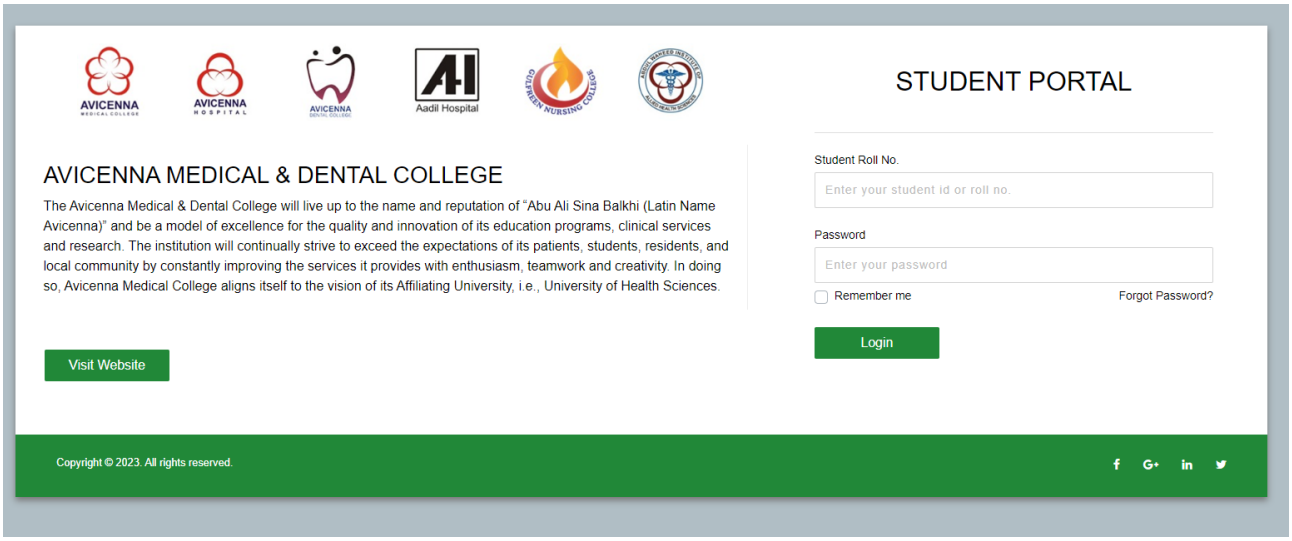
2. Avicenna Medical & Dental College lays emphasis on the provision of learning material and online video lectures, video tutorials in the e-library and learning resource center, which has a dedicated website of Avicenna Medical College to enable the students to develop concepts and clarify their doubts, if they have not been able to do so in the teaching sessions during college hours. The digital library can be approached on http://digital.avicennamch.com/.



3. The institution has also endeavored to link itself with the digital libraries and e-library of the University of Health Science (UHS) and Higher Education Commission (HEC) to enable the students to benefit from the valuable resource material, lectures and knowledge bank at these sites. The links are available with the HEC http://www.digitallibrary.edu.pk/ and learning management system of UHS http://lms.uhs.edu.pk .

4. The Learning Management System (LMS) at Avicenna Medical & Dental College is a comprehensive platform managed by the Department of Student Affairs. It is designed to facilitate effective communication and information exchange between students, parents, faculty, and administrative staff. The LMS portals are specifically tailored to meet the needs of the following stakeholders:

   a. **Students**: For academic resources and scheduling.
   b. **Parents:** For monitoring academic progress and other relevant information.
   c. **Faculty:** For managing course content and academic activities.
   d. **Department of Student Affairs:** For overseeing administrative functions.
   e. **Department of Medical/Dental Education:** For overseeing academic functions.



5. Students can access a comprehensive range of academic resources and information through the student portal. By logging in with their roll number and password, students can:

   - Look at their attendance and results.
   - Review academic activities and weekly timetables/schedules.
   - Access rotation planners and test schedules.
   - Check for any notification, assignment or resource material from their teachers.

6. The information to the parent is duplicated by the issuance of the password and login to the Students Learning Management System which is dedicated to the Academic Program of the students. The parents can view the following by logging in to the mobile app of Avicenna Student Management System:

   a) Syllabus
   b) Table of specifications
   c) Annual Planner
   d) Synopsis
   e) Block Time Table
   f) Weekly training program
   g) Allocation of Marks
   h) Assessment calendar
   i) Results of tests / exams*
   j) Students' attendance record
   k) Fees & fines

Assessment Guidelines

Assessment in dental education is a critical component designed to ensure that dental students acquire the necessary knowledge, skills, and competencies required for effective 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.
- Oral 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 BDS 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	10%	100 %
External Assessment Weightage	90%	



Internal Assessment Criteria

Internal Assessment	Paper	Assessment Methods	Percentage Weightage
Grand Tests	Theory	MCQs SEQs	30%
Early Session Exam	Theory	MCQs SEQs	70%
Mid Session Exam	Theory	MCQs SEQs	
Clinical Assessment	Batch Clinical Assessment	Practical Viva OSCE	100%
Send-up Exam	Theory	MCQ SEQ	100%
	Final Clinical Assessment	Practical Viva	100%
Total			400%

Reference attached on next page.

Avicenna Dental College

Examination Marks Scheme 2023-2024

New

Final Year BDS

Form No	BDS-4 Form-1		BDS-4 Form-2		BDS-4 Form-3		BDS-4 Form-4		BDS-4 Form-5		BDS-4 Form-6	
Test Type	Grand Test		Revision Test		Session Exam		Send Up		Batch Clinical Assessment (BCA) *1		Final Clinical Assessment (FCA) *2 (Late Session & Send up Exam)	
Mode of Exam	Theory		Theory		Theory		Theory		Clinical			
Weightage	30%		0%		70%		100%		100%		100%	
Operative Dentistry 200	MCQ 55, SEQ 45	100	MCQ 26, SEQ 24	50	MCQ 41, SEQ 39	80	MCQ 41, SEQ 39	80	Practical 55, Viva 25	80	Practical 55, Viva 25	80
Prosthodontics 200	MCQ 55, SEQ 45	100	MCQ 26, SEQ 24	50	MCQ 41, SEQ 39	80	MCQ 41, SEQ 39	80	Viva 40, Practical 40	80	Viva 40, Practical 40	80
Oral & Maxillofacial Surgery 200	MCQ 55, SEQ 45	100	MCQ 26, SEQ 24	50	MCQ 41, SEQ 39	80	MCQ 41, SEQ 39	80	Practical 40, Viva 40	80	Practical 40, Viva 40	80
Orthodontics 200	MCQ 55, SEQ 45	100	MCQ 26, SEQ 24	50	MCQ 41, SEQ 39	80	MCQ 41, SEQ 39	80	OSPE 20, Practical 35, Viva 25	80	OSPE 20, Practical 35, Viva 25	80

NOTE 1: * Batch Clinical Assessment(BCA) Clinical exam held at the end of each rotation for each batch

NOTE 2 : * Final Clinical Assessment(FCA) Exit exam at the end of Late Session & Send up exam Before Final Prof for all students

Department of Operative Dentistry	Department of Orthodontics	Department of Prosthodontics	Department of Oral Maxillofacial Surgery

Head of Examination Cell : _____

Chairman Avicenna: _____

External Assessment

<table>
<tr><th colspan="2">Paper Details</th><th>Assessment Methods</th><th>Total Marks</th><th>Percentage Weightage</th></tr>
<tr><td rowspan="3">Theory
● 90 marks
● 3 hrs</td><td rowspan="2">External Assessment</td><td>45 MCQs (1 mark each)</td><td>45 marks</td><td rowspan="3">50 %</td></tr>
<tr><td>15 SEQs (3 marks each)</td><td>45 marks</td></tr>
<tr><td>Internal Assessment</td><td>See Internal Assessment Criteria</td><td>10 marks</td></tr>
<tr><td rowspan="2">Practical
● 90 marks
● 3 hrs</td><td>External Assessment</td><td>Viva & OSPE</td><td>90 marks</td><td rowspan="2">50%</td></tr>
<tr><td>Internal Assessment</td><td>See Internal Assessment Criteria</td><td>10 marks</td></tr>
<tr><td colspan="3">Total</td><td>200 Marks</td><td>100%</td></tr>
</table>

Sample Paper

MCQ

Stem: An 8 years old female patient reported to the orthodontic department with the chief complaint of crooked teeth with difficulty in eating food. Upon clinical examination you termed the patient as having a "dental emergency". This is another name of:

Option:

a)ANTERIOR CROSSBITE *
b)SUNDAY BITE
c)OPEN BITE
d) DEEP BITE

COGNITIVE LEVEL: Recall

DIFFICULTY LEVEL: Moderate

IMPORTANCE: Must Know

REFERENCE:

REFERENCE: CONTEMPORARY ORTHODONTICS 6TH EDITION. WILLIAM R. PROFFIT. CHAPTER NO: 11. PAGE: 368-71

SEQ/SAQ

Scenario
A 9 year old boy presented to an orthodontic clinic outdoors. Upon clinical examination, it was observed that he had minor anterior crowding. This is normal for this age group and is observed as a routine during development of dentition and occlusion.

Define the following terms

Questions	Marks
a)what is incisal liability?	**1**
b)In which arch incisal liability is usually expressed?	**1**
c) What is the location of primate space in both arches?	**1**

Key	Marks
a)The difference between the amount of space needed for permanent incisors to align themselves and the amount of space available for them is called the incisor liability.	**1**
b)In the mandibular arch, when the lateral incisors erupt, there is on the average 1.6 mm less space available for the four mandibular incisors than would be required to perfectly align them.	**1**
c) In the maxillary arch, the primate space is mesial to the canine. In the mandibular arch, the primate space is distal to the canine.	**1**

COGNITIVE LEVEL: Recall

DIFFICULTY LEVEL: /Easy

IMPORTANCE: Must Know

REFERENCE: REFERENCE: CONTEMPORARY ORTHODONTICS 6TH EDITION. WILLIAM R. PROFFIT. CHAPTER NO: 3 EARLY STAGES OF DEVELOPMENT PAGE: 80-82

OSCE

Scenario : **A 12 YEARS OLD BOY REPORTED TO ORTHODONTIC CLINIC WITH CLASS II MALOCCLUSION AND CONSTRICTED MAXILLA. HOW WILL YOU DETERMINE THE ACTUAL EXTENT OF CLASS II MALOCCLUSION AND WHICH JAW IS AT FAULT?**

TRACE THE LATERAL CEPHALOGRAM OF THE GIVEN PATIENT.

Key:

1. **Rubric designed to assess the steps in tracing a lateral cephalogram.**

S.No	Assessment area	Absent	Not yet met	Just met	Met	Exceeds expectations
		0	1	2	3-4	5
1.	Correct positioning of the tracing sheet on the radiograph					
2.	Reference crosses are marked at the right position on the head and neck region					
3.	Skeletal tissue is traced completely					
4.	Dental tissues are traced completely					
5.	Soft tissues are traced completely					
6.	Horizontal reference line is taken correctly					

	Total marks= 30 marks					

CURRICULUM DETAILS

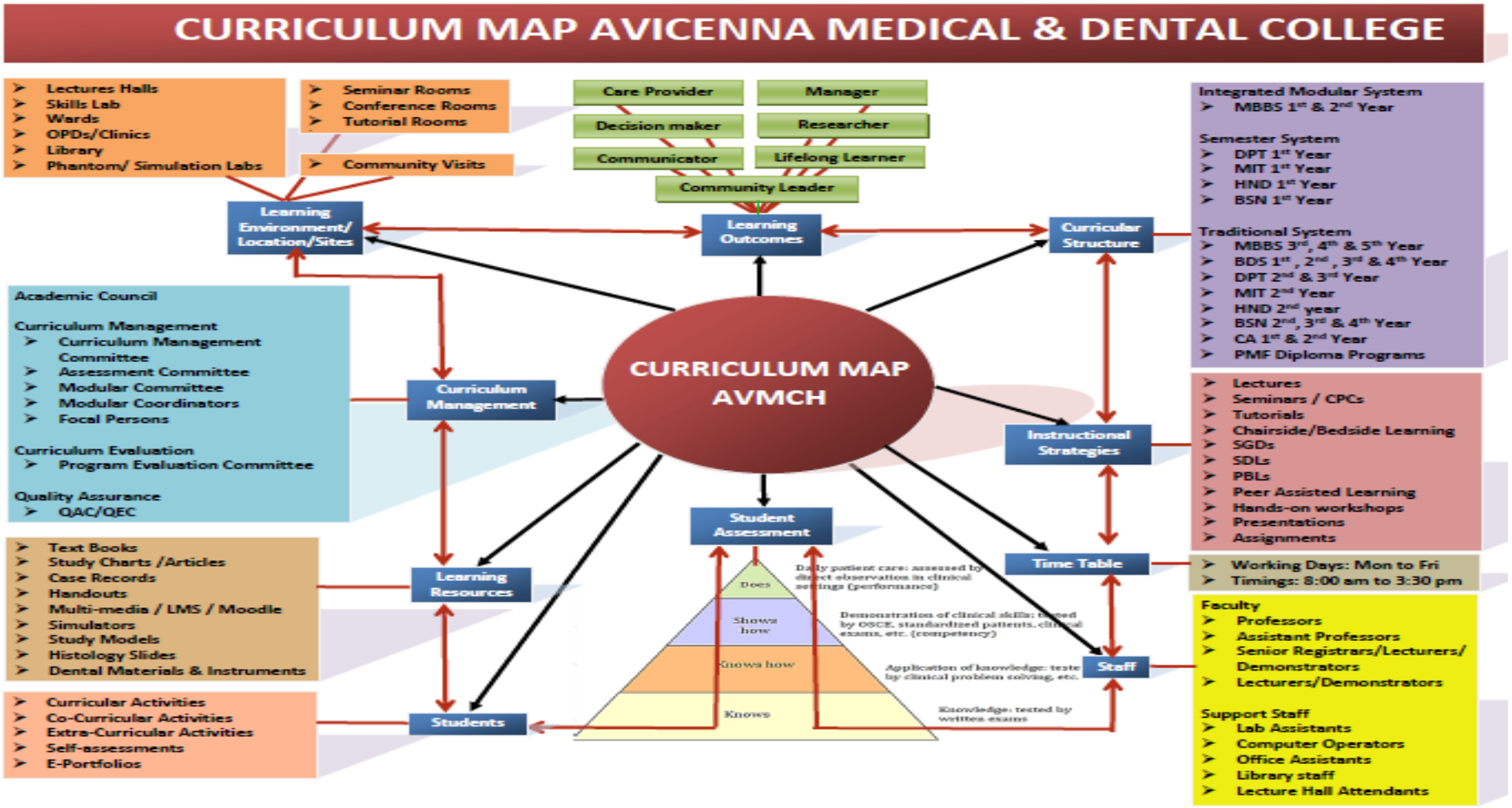
Curricular Framework including allocation of hours (PMDC)

BDS SCHEME OF STUDIES			
Basic Dental Sciences / Preclinical Year		**Clinical Dental Sciences / Clinical Years**	
1st Professional Year	**2nd Professional Year**	**3rd Professional Year**	**4th Professional Year**
Anatomy 300 Hours	**General Pathology** 220 Hours	**General Medicine** 180 Hours	**Operative Dentistry** 250 Hours
Physiology 300 Hours	**Pharmacology** 220 Hours	**General Surgery** 170 Hours	**Prosthodontics** 250 Hours
Biochemistry 180 Hours	**Science of Dental Materials** 300 Hours	**Oral Pathology** 180 Hours	**Orthodontics** 250 Hours
Oral biology & Tooth Morphology 300 Hours	**Community Dentistry** 200 Hours	**Oral Medicine** 150 Hours	**Oral & Maxillofacial Surgery** 250 Hours
General Education 120 Hours (Islamiat, Pakistan Studies Behavioural Sciences, Research, English, Arts & Humanities)	**Pre-clinical Operative Dentistry** 80 Hours	**Periodontology** 180 Hours	**Paediatric Dentistry** 100 Hours
	Pre-clinical Prosthodontics 80 Hours	**Clinical Operative** 80 Hours	**General Education** 100 Hours (Research, English, Arts & Humanities, ICT)
	General Education 100 Hours (Behavioural Sciences, Research, English, Arts & Humanities, ICT)	**Clinical Prosthodontics** 80 Hours	
		Clinical Oral & Maxillofacial Surgery 80 Hours	

		General Education 100 Hours (Research, English, Arts & Humanities, ICT)	
1200 hours	**1200 hours**	**1200 hours**	**1200 hours**

Curricular Map & Rationale

1. 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:



Rationale 4th Professional Year	
Subjects	**Orthodontics**
TERM- I	• Dentition in occlusion • Growth • Classification of malocclusion • Diagnosis
TERM- II	• Fixed Appliances • Bio Mechanics • Syndromes • Preventive and Interceptive orthodontics
TERM-III	• Treatment planning of Class I, Class II and Class III malocclusions • Functional appliances • Retention • Surgical orthodontics • Adjunctive orthodontics

Learning Outcomes

Topic/ Content	Student Learning Outcomes	Mode of Information (MOIT)	Learning Domain (KSA-Model)
INTRODUCTION TO ORTHODONTICS	**The student should be able to understand and define:** 1. Overjet 2. Overbite 3. Tip 4. Torque 5. Facial profile angle	**Lecture**	**K**
DEVELOPMENT OF DENTITION AND OCCLUSION	**The student should be able to:** 1. Differentiate dentitions and their properties **2.** Recognize various occlusions and its features 3. Understand Developmental process involved in various dentitions 4. Manage space related issues.	**Lecture / Practical**	**K S**
CONCEPTS OF PHYSICAL GROWTH AND DEVELOPMENT	**The student should be able to:** 1. Understand basic concepts and theories of growth 2. Perform methods applied to study physical growth 3. Learn growth of craniofacial complex, cranial vault, cranial base, maxilla and mandible	**Lecture**	**K**

GROWTH PATTERN IN THE DENTOFACIAL COMPLEX	**The student should be able to:** 1. Describe dimensional growth of jaws and head and neck 2. Describe theories of growth 3. Explain growth rotations	**Lecture**	**K**
THE LATER STAGES OF DEVELOPMENT	**The student should be able to:** 1. Describe and recall eruption timings of the primary teeth 2. Understand the maturation of oral functions 3. Describe eruption of permanent teeth 4. Enumerate phases involved in eruption of teeth 5. Explain dental ages 6. Understand incisor liability **7.** Differentiate features of dentitions involved in these transitions	**Lecture / Practical**	**K S**

THE ETIOLOGY OF ORTHODONTIC PROBLEMS	**The student should be able to:** 1. Understand the contemporary perspectives involved in orthodontic malocclusions. 2. Outline disturbances in Embryologic development 3. Understand growth disturbances in fetal and perinatal period, 4. Adolescence or early adult life and dental development.	**Lecture**	**K**
ORTHODONTIC DIAGNOSIS	**The student should be able to:** **1.Classify malocclusion** **2. Perform an elaborate problem oriented approach of diagnosis.** **3,Perform analysis of diagnostic records.** **4. Develop a problem list.**	**Lecture / Clinical demonstration**	**K S A**
ORTHODONTIC TREATMENT PLANNING	**The student should be able to:** **1. Comprehend treatment planning concepts and goals** **2. Enlist treatment options.** **3. Understanding various treatment planning options is special circumstances.**	**Lecture/ Clinical demonstration / Practical**	**K S A**

THE BIOLOGICAL BASIS OF ORTHODONTIC THERAPY	**The student should be able to:** **1. Understand the periodontal and bone response to normal function and to sustained orthodontic forces** **2. Differentiate between various orthodontic forces** **3. Manage deleterious effects of orthodontic forces** **4. Enumerate skeletal effects of orthodontic forces.**	**Lecture**	**K**
MECHANICAL PRINCIPLES IN ORTHODONTIC FORCE CONTROL	**The student should be able to:** **1. Enumerate properties of various archwire materials.** **2. Understand mechanical principles in orthodontic force control.** **3. Classify and understand anchorage**	**Lecture**	**K**
REMOVABLE APPLIANCES	**The student should be able to:** **1. Recall history of orthodontic appliances** **2. Enumerate Components of removable appliances** **3. Enlist indications of removable appliances** **4. Understand various types of orthodontic tooth movement.**	**Lecture/ Practical**	**K S**

CONTEMPORARY FIXED APPLIANCES	**The student should be able to:** **1. Understand steps involved in bonding and banding attachments** **2. Understand characteristics of contemporary edgewise appliances** **3. Comprehend straight wire concepts**	**Lecture/ Clinical demonstration**	**K S A**
FUNCTIONAL APPLIANCES	**The student should be able to:** **1. Understand ideology behind functional appliances** **2. Comprehend concept of growth modification** **3. Understand mode of action of various types of functional appliances** **4. Enlist design features of various functional appliances**	**Lecture/ Practical/ Clinical demonstration**	**K S A**
RETENTION	**The student should be able to:** **1. Understand need and rationale behind retention** **2. Enlist various types of retainers and their components** **3. Understand various theorems of retention**	**Lecture/ Practical**	**K S A**

ADJUNCTIVE TREATMENT	**The student should be able to:** **1. Understand goals and principles of adjunctive treatment** **2. Enlist various procedures used as adjunctive orthodontics**	**Lecture**	**K A**
SPECIAL CONSIDERATION IN COMPREHENSIVE TREATMENT OF ADULTS	**The student should be able to:** **1. Understand special considerations in adult patients** **2. Evaluate tmj dysfunction for orthodontic patients** **3. Evaluate prosthetic –implant interface**	**Lecture/ Clinical demonstration**	**K S A**
COMBINED SURGICAL AND ORTHOD0NTIC TREATMENT	**The student should be able to:** **1. Define goals of orthodontic treatment** **2. Enlist steps of surgical orthodontics** **3. Comprehend different types of Orthognathic** **Surgery.**	**Lecture**	**K**

CLEFT LIP AND PALATE ANd OTHER FACIAL ANOMALIES	**The student should be able to:** **1. Understand Infant orthopedics** **2. Comprehend Late primary and early mixed dentition** **3. Enlist treatment options in all dentitions. Early permanent dentition treatment** **4. Understand treatment goals for Orthognathic surgery of cleft lip and palate patients.**	**Lecture**	**K**
RADIOLOGY AND CEPHALOMETRICS	**The student should be able to:** **1. Order appropriate diagnostic records** **2. Trace and interpret lateral cephalograms** **3. Diagnose and plan Class I malocclusion cases**	**Lecture/ Practical/ Clinical demonstration**	**K S A**
Total			

Assessment TOS/Blueprint

Topic/ Content	Assessment Method (No. of Questions)			
	MCQS	SEQs	Viva	OSCE
INTRODUCTION TO ORTHODONTICS	2	0	1	1
DEVELOPMENT OF DENTITION AND OCCLUSION	2	1	1	1
CONCEPTS OF PHYSICAL GROWTH AND DEVELOPMENT	3	1	1	0
GROWTH PATTERN IN THE DENTOFACIAL COMPLEX	3	1	**1**	**0**
THE LATER STAGES OF DEVELOPMENT	3	0	**0**	**1**
THE ETIOLOGY OF ORTHODONTIC PROBLEMS	2	1	**0**	**0**
ORTHODONTIC DIAGNOSIS	5	2	**2**	**0**
ORTHODONTIC TREATMENT PLANNING	8	1	**2**	**2**
THE BIOLOGICAL BASIS OF ORTHODONTIC THERAPY	2	1	**1**	**0**

MECHANICAL PRINCIPLES IN ORTHODONTIC FORCE CONTROL	1	0	**1**	**0**
REMOVABLE APPLIANCES	1	0	**1**	**1**
CONTEMPORARY FIXED APPLIANCES	2	1	**1**	**1**
FUNCTIONAL APPLIANCES	3	1	**0**	**1**
RETENTION	1	1	**0**	**1**
ADJUNCTIVE TREATMENT	1	1	**0**	**0**
SPECIAL CONSIDERATION IN COMPREHENSIVE TREATMENT OF ADULTS	1	1	**0**	**0**
COMBINED SURGICAL AND ORTHOD0NTIC TREATMENT	1	1	**0**	**0**
CLEFT LIP AND PALATE ANd OTHER FACIAL ANOMALIES	1	1	**1**	**1**
RADIOLOGY AND CEPHALOMETRICS	3	0	**2**	**1**

Total	45	15	15	11


AVICENNA DENTAL
AVICENNA MEDICAL COLLEGE
AVICENNA DENTAL COLLEGE
GULFREEN NURSING COLLEGE
ABDUL WAHEED INSTITUTE
OF ALLIED HEALTH SCIENCES