AVICENNA
MEDICAL COLLEGE

Study Guide
OF PAEDIATRICS
FOR 5th PROFF MBBS

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MESSAGE FROM PRINCIPAL, AVICENNA MEDICAL COLLEGE

PROF. DR. GULFREEN WAHEED

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 live up to its mission of training and producing medical graduates of international standards. 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.

As a Principal I am fortunate to take quick decisions and student friendly measures, yet managing the high standards of Medical Education at the campus. The students at Avicenna are provided with an encouraging environment conducive to their learning and growth and are trained on the pattern test concepts and strategies in Medical Education. They are groomed on modern lines with due emphasis on the highest standards of discipline, Medical Professionalism, Medical and Social ethics in conformity to our cultural and religious values. These attributes along with an inclination towards research and development in academics is the focal point of our education system. Beyond this, we provide students with various opportunities to engage in co-curricular activities thus enabling them to bring out their naturally gifted talent. The student committee and clubs at Avicenna Medical College organizes events throughout the academic year which provide an opportunity to the students to enhance their talents and ability for teamwork. As an institution, we feel pride in the fact that we have won the confidence of the parents, who feel satisfied with the conservative yet progressive atmosphere of our Institution, high standards of Medical Education and discipline. Most parents show complete satisfaction once their child joins the 'Avicenna Family'. I welcome the batch of MBBS students to the continuously expanding family of Avicenna Medical College where diligent and devoted faculty members are ready to facilitate eager learners, enabling them to become future professionals and leaders. May Allah bless your endeavors with success and may you bring honors to your Alma Mater. Ameen!

MESSAGE FROM HOD, PAEDIATRICS

AVICENNA MEDICAL COLLEGE

PROF.DR.MARYAM WAHEED

M.B.B.S.,F.C.P.S.,D.C.H.

PROFESSOR/H.O.D.

Paeds department has 40 beds. It also has a Paeds ward, a neonatal ward, a well-baby nursery & Paeds intensive care unit. Over the course period, students will be part of organized teaching programs that will comprise of lectures, clinical postings, evaluation tests and much more. The Paeds unit has OPD and inpatient department where qualified doctors deal with sick children. The general paediatric ward is involved in treating children affected with acute gastroenteritis and infectious diseases. The department is complemented by a Neonatal Care Unit (NCU) that has all the facilities to take care of sick new-born babies. The NICU is equipped with ventilators, incubators, phototherapy units, monitors, oxygen and suction ports, resuscitation kits & emergency drugs, managed by trained nurses. Immunization / vaccination programs are also run by this department.

WHAT IS A STUDY GUIDE?

- Inform students how student learning program has been organized according to their learning objectives.
- Help students organize and manage their studies throughout the course.
- Guide students on assessment methods, rules and regulations

THE STUDY GUIDE:

- Communicates information on organization and management of the course. This will help the student to contact the right person in case of any difficulty.
- Defines the objectives which are expected to be achieved at the end of the course.
- Identifies the learning strategies such as lectures, small group teachings, clinical skills, demonstration, tutorial and case-based learning that will be implemented to achieve the course objectives.
- Provides a list of learning resources such as books, computer assisted learning programs, web-links, journals, for students to consult in order to maximize their learning.

STUDENT'S OVERALL PERFORMANCE:

- Includes information on the assessment methods that will be held to determine every student's

ACHIEVEMENT OF OBJECTIVES:

- Focuses on information pertaining to examination policy, rules and regulations.

INTRODUCTION TO THE DEPARTMENT

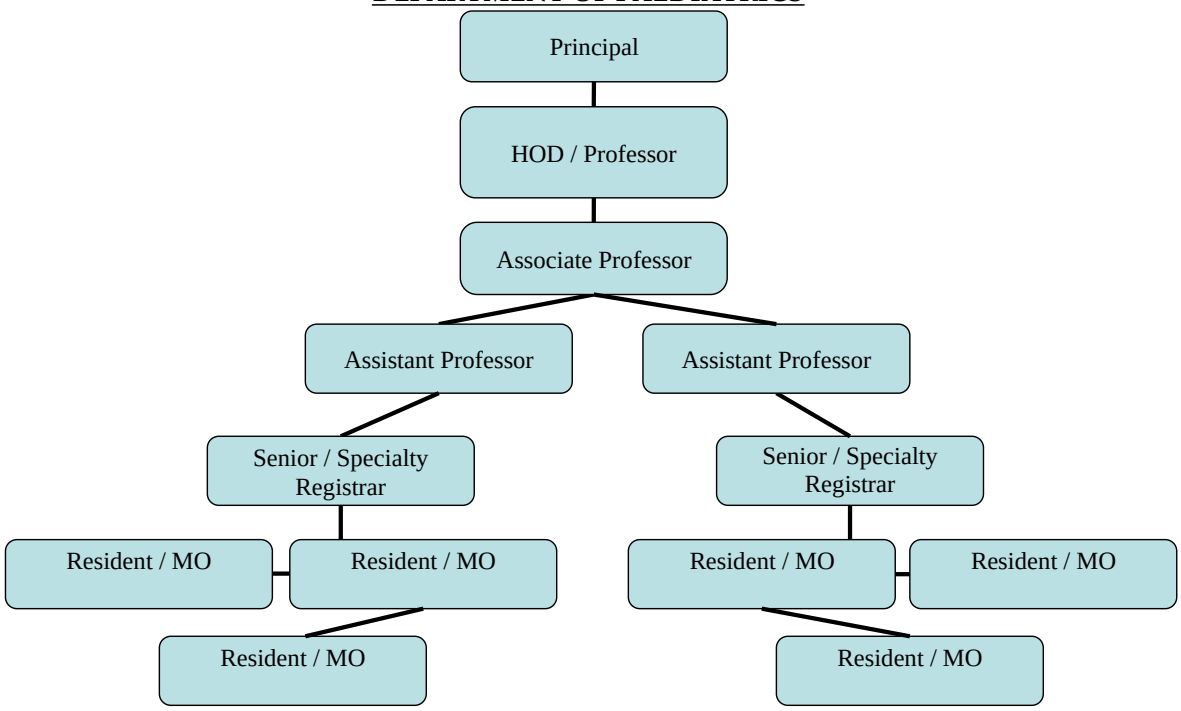
The department of Pediatrics fullfils all the criteria for standard training of future Medical Professional with variety of cases and an academic environment. Highly qualified and experienced Faculty members have created research based protocols for managing Pediatric patients and educating graduate and postgraduate students. Pediatric department of AVICENNA MEDICAL COLLEGE comprises of 40 beds distributed among neonatal Intensive Care Unit, Pediatric Intensive Care Unit, General Ward and Isolation. PICU and NICU are well equipped with state of the art Neonatal Intensive Care, Incubator Care and ventilatory Support.

GOALS OF THE DEPARTMENT

The overall goal of Paediatrics Department, in the simplest terms, is to provide residents with the training necessary to be an excellent pediatrician. This seems like a reasonable goal considering that about half of our residents choose a career in general pediatrics. But we also believe that the best pediatric specialists all begin as very good general pediatricians.

A solid understanding of general pediatrics is the basis of all of your future clinical expertise. Regardless of the career path you choose, you will need to be a physician who is able to provide comprehensive, coordinated care to a broad range of pediatric patients whether in a community or academic setting, and whether those patients have acute short term illnesses or chronic and complex diseases.

DEPARTMENT OF PAEDIATRICS



CURRICULUM AND LEARNING OUTCOMES

Sr#	**Theme**	**Sub-Theme**	**Learning Objectives**
1	***Nutrition***	Breast feeding Infant feeding Weaning Nutritional disorder (PCM, Rickets, Vitamin A Deficiency, iodine deficiency, Iron Deficiency)	Student will demonstrate understanding of the importance of nutrition in children and be able to describe diets suitable for different ages and in different diseases.
2	***Growth and Development***	Growth Development	Student will show an understanding of processes of growth and development in childhood and will be able to describe growth parameters and developmental milestones at different ages.
3	***Common Pediatric Infections***	Measles Tetanus Polio Diphtheria Whooping cough AIDS Malaria Enteric Fever, Tuberculosis Chicken pox Common Skin infections.	Student will demonstrate understanding of common childhood infections at different ages and in different diseases.
4	***Expanded Programme of Immunization (EPI)***	EPI vaccines Newer vaccines.	Student will demonstrate understanding of existing vaccines and newer vaccines administered in childhood
5	***IMCI (Integrated Management of Childhood Illness)***	Assess, classify and treat sick young infant (<2 months) & sick child (2 months-5 years) Acute respiratory infections Diarrheal diseases	Student will show an understanding of national programmes working for health promotion and disease prevention in children e.g. EPI, ARI etc.
6	***Neonatology***	Resuscitation of new born Care of normal new-born Birth asphyxia Premature and low birth weight babies Neonatal Jaundice Neonatal sepsis Neonatal fits Respiratory distress of new born Common skin conditions of neonates Pyloric stenosis Myelo-meningocele,	Student will be able to describe care of new-born baby, in health and when suffering from common problems, along with importance of perinatal factors impacting on the well-being of the newborn

		Hydrocephalus Common congenital abnormalities Birth trauma.	
7	***Neurology***	Meningitis Febrile, convulsions Epilepsy Cerebral Palsy Mental handicap Cerebral Malaria Encephalitis	Student will demonstrate understanding of common childhood neurological illnesses at different ages
8	***Cardiology***	Congenital heart diseases [VSD, PDA, TOF, ASD] Rheumatic fever Congestive cardiac failure Clinical assessment of a cyanotic neonate/infant.	Student will demonstrate understanding of common cardiovascular diseases in children at different ages
9	***Haematology***	Anaemias Thalassemia Leukemias Bleeding disorders	Student will demonstrate understanding of common haematological diseases in children at different ages
10	***Nephrology***	Nephrotic syndrome Urinary tract infections Acute Glomeulonephritis	Student will demonstrate understanding of common renal diseases in children at different ages
11	***Endocrinology***	Hypothyroidism Short stature Diabetes	Student will demonstrate understanding of common endocrine problems in children at different ages
12	***Pulmonology***	Croup Asthma Pneumonias Pleural effusion	Student will demonstrate understanding of common respiratory diseases in children at different ages
13	***Gastroenterology***	Abdominal pain Malabsorption Hepatitis Cirrhosis Acute liver failure Diarrhoea [acute/chronic] Dysentery Worm infestations Giardia Amoebiasis Rectal Polyp	Student will demonstrate understanding of common diseases related to gut and liver in children at different ages
14	***Genetics***	Pattern of inheritance Down's syndrome	Student will show an understanding of the interaction between heredity and environment in the genesis of disease in children.
15	***Social Paediatrics***	Right of child Child abuse Enuresis Encoparesis Hyperactivity	Student will demonstrate understanding of common problems related to social issues of children at different ages

		Dyslexia Attention Deficit disorder	
16	***Miscellaneous***	Poisoning Prevention of home accidents Behavioural disorders	The Student will show understanding and knowledge about common accidents and poisoning in children and their management.
17	***Paediatric Surgery***	Hernia Intussusseption Intestinal obstruction Tallipes Congenital Dislocation of Hip Vesico ureteral reflux	Student will demonstrate understanding of common surgical problems in children at different ages
18	***Skills***	History taking Clinical Methods Resuscitation of newborn. Basic cardiopulmonary resuscitation Anthropometric measurements Measuring blood pressure. Starting Intravenous lines/draw blood sample Administration of Oxygen therapy Giving Nebulizer therapy Use of Growth chart. *Observe the following skills:* Lumbar Puncture Bone marrow aspiration Supra pubic puncture Subdural tap Thoracocentesis Pericardiocentesis Liver Biopsy Renal biopsy Observe passing of catheter Observe pericardial tap	Students will demonstrate his ability to obtain a relevant clinical history from a parent or an older child. Student will demonstrate his ability to perform adequate clinical examination of a child of any age (including new-born). Student will be able to interpret clinical and laboratory data arriving at a diagnosis. Student will be able to advise appropriate nutritional measures for healthy and sick children (Breast feeding, avoidance of bottle, proper weaning). Student will be able to counsel the parents on health promotive and disease preventive strategies for the child e.g. immunisation procedures; hand washing) Student will be able to recognize and manage common health problems of children. Student will recognize the danger signs of disease in children and be able to appropriately refer children with severe disease to appropriate specialists/hospitals. Student will demonstrate his ability to perform essential clinical procedures relevant to children

UHS SYLLABUS

The course outline is as follows :

List of suggested topics for teaching the undergraduates is given below, however the individual faculties can alter/add topics as per their discretion in respective institution:

- Common problems of children in Pakistan and statistics of Pakistani children
- Clinical methods in paediatrics
- Nutrition (breast feeding, infant feeding , weaning) and nutritional disorders:(PEM, rickets, vitamin A deficiency, iodine deficiency, iron deficiency)
- Growth and development. • Common pediatric infections: measles, tetanus, polio, diphtheria, whooping cough, aids
- Malaria, enteric fever, tuberculosis, chicken pox, common skin infections
- Expanded program of immunization (EPI) .newer vaccines
- Diarrheal diseases.
- Acute respiratory infections (ARI).
- IMCI (integrated management of childhood illness).
- Neonatology: resuscitation of new born, care of normal new born, birth asphyxia, premature and low birth weight babies, neonatal jaundice, neonatal sepsis, neonatal fits, respiratory distress of new born, common skin conditions of neonates; pyloric stenosis, myelomeningocele, hydrocephalus, common congenital abnormalities and birth trauma.
- Neurology: meningitis, febrile, convulsions, epilepsy, cerebral palsy, mental handicap, cerebral malaria, encephalitis
- Cardiology: congenital heart diseases [VSD, PDA, TOF, ASD], rheumatic fever. Congestive cardiac failure, clinical assessment of a cyanotic neonate/infant.
- Haematology: anaemias, thalassemia, leukemias, bleeding disorders.
- Nephrology: nephrotic syndrome, urinary tract infections, acute glomeulonephritis

- Endocrinology: hypothyroidism, short stature, diabetes
- Pulmonology: croup, asthma, tuberculosis, pneumonias , pleural effusions.
- Gastroenterology: abdominal pain, malabsorption, hepatitis, cirrhosis, acute liver failure
- Diarrhea[acut/echronic] dysentery, worm infestations, giardia, amoebiasis, rectal polyp.
- Genetics: patterns of inheritance, Down's syndrome,
- Social pediatrics: right of child, child abuse, enuresis, encoparesis, hyperactivity
- Dyslexia, attention deficit disorder
- Miscellaneous: poisoning, prevention of home accidents, behavioral disorders.
- Pediatric surgery: hernia, intussusceptions, intestinal obstruction, tallipes, congenital dislocation of hip, vesico ureteral reflux.

SKILLS:

1. Students will demonstrate his ability to obtain a relevant clinical history from a parent or an older child.

2. Student will demonstrate his ability to perform adequate clinical examination of a child of any age (including newborn).

3. Student will be able to interpret clinical and laboratory data to arrive at a diagnosis.

4. Student will be able to advise appropriate nutritional measures for healthy and sick children (Breast feeding, avoidance of bottle, proper weaning)

5. Student will be able to counsel the parents on health promotive and disease preventive strategies for the child e.g. immunization procedures; hand washing)

6. Student will be able to recognize and manage common health problems of children.

7. Student will recognize the danger signs of disease in children and be able to appropriately refer children with severe disease to appropriate specialists/hospitals.

8. Student will demonstrate his ability to perform essential clinical procedures relevant to children e.g.

③ Resuscitation of newborn.

③ Basic cardio-pulmonary resuscitation.

③ Anthropometric measurements.

③ Measuring blood pressure

③ Starting intravenous lines/ draw blood sample

③ Administration of oxygen therapy

③ Giving nebulizer therapy [bronchodilator]

③ Use of growth chart

OBSERVE THE FOLLOWING SKILLS:

1. Lumbar puncture
2. Bone marrow aspiration
3. Supra pubic puncture
4. Subdural tap
5. Thoracentesis
6. Pericardiocentesis
7. Liver biopsy
8. Renal biopsy
9. Observe passing of catheter
10. Observe pericardial tap

SOURCE OF KNOWLEDGE

RECOMMENDED BOOKS:

1. **Text book of paediatrics** by Pervaiz Akbar
2. **Essentials of Paediatrics** by Nelson. Latest Edition.
3. **Online Journals and Reading Materials** through HEC Digital Library Facility

POLICY & GUIDELINES OF

LEARNING STATERGIES & STUDY SKILLS FOR MEDICAL STUDENTS

This document is a Summary written for the purpose of the study guides. For details refer to the document "A HANDBOOK OF POLICY & GUIDELINES OF LEARNING STATERGIES & STUDY SKILLS FOR MEDICAL STUDENTS" available for the students at website, Bookshop and the Department of Medical Education.

STEPS TO STRATEGIC LEARNING:

1. **Set realistic learning goals.**
   These goals serve as the driving force to generate and maintain the motivation, thoughts, and behaviour necessary to succeed. Set and use long-term occupational goals (you want to be a doctor) and short-term learning goals (you want to understand this new material).

2. Types of knowledge needed to be a strategic learner:

- Know yourself as a learner (learning preferences, talents, best times of day to study, ability to match study skills to learning task) this knowledge helps you set realistic yet challenging learning goals.
- Knowing the nature and requirements of different types of educational tasks.
- Knowing a variety of study skills and learning strategies and how to use them.
- Knowing the contexts in which what is being learned can be used now or in the future.

3. **Use a variety of learning strategies:**
   - Manage your study environment,
   - Coordinate study and learning activities,
   - Keep your motivation for learning clear,
   - **G**enerate positive behaviours toward learning,
   - **M**ake new information meaningful to you,
   - **O**rganize and integrate new information with existing knowledge, or Re-organize existing knowledge to fit the new understanding and information.
   - Place new information in a present or future context.

ACADEMIC HOURS BREAKDOWN

Paediatrics					
Week	**Lectures (1hr)**	**Tutorial (1hr)**	**CBD/OPD/Ward**	**Skill Class**	**Assessment**
1	2		5	4	
2	2		6	4	
3	3	1	5	4	Writ Test
4	2	1	5	4	Writ Test
5	3		5	4	
6	3		5	5	Ward Test
7	3		5	4	
8	2		5	4	
9	2	1	5	4	Writ Test
10	2		5	4	
11	2		5	4	Ward Test
12	2	1	5	4	
13	1			3	OSPE (2)
14	1		1		OSPE (2)
15		2			RT (2)
16			4		
17	4		2	2	ESE; Writ Test
18	3		5	4	Ward Test
19	2		5	4	
20	2		5	4	
21	2		5	4	
22	2		5	4	
23	1	1	2	2	Ward Test; Writ Test
24	2		3	4	
25	2		5	4	
26	2		5	4	
27	2		4	5	Ward Test
28	2		4		
29	2		5		

30	4		5		RT (4)
31	1		5		
32					
33					MSE
34					
35					GT
36					GT
37					
38					
39					
40					
41					RT (2)
42					SENDUP
43					
Total Sessions	63	7	131	93	
Total Hours	63	10.5	262	139.5	
Hours:	Lect. & Tut.	73.5	Ward/Skill	401.5	
Gross Total	475				

ASSESSMENT HOURS

Pediatrics					
Test	**Total Tests**	**Total Hours**			
GT	6	12			
RT	13	19.5			
ESE/MSE/LSE	3	9			
Ward Test	5	17.5			
Grand Total	27	58	**85**		

- **100 HOURS ARE GIVEN PER YEAR FOR SELF DIRECTED STUDY.**
- **30 HOURS ARE GIVEN PER YEAR ACCORDING TO ALPHA PROGRAM.**

INTERNAL ASSESMENT POLICY

The assessment policy of Avicenna Medical College clearly reflect that the assessment must covers knowledge, skills and attitude to be acquired by a medical student at the end of the each Professional Year and the entire MBBS Course.

- Theoretical knowledge is assessed by means of MCQs, SEQs, Structured Viva, CBD Tutorials and Pre-Test Tutorials.
- Professional and Clinical Skills are assessed through OSPE, OSCE, Practical Exams and Long and Short Cases.
- Attitudes are assessed through OSPE, OSCE, Practical Exams, Long Cases, Short Cases and Vivas

Assessment Procedures

Performance of students will be assessed as follows:

a. Programmatic Assessment During Academic Year: Grand Tests and Revision Test

It will incorporate both formative and summative assessment for all academic years.

1) **Formative Assessments:**
   These are Conducted throughout the academic year. These are low stake examinations with feedback to improve student learning, leading to better performance in summative assessments and the UHS Professional Examinations. At Avicenna Medical College the formative assessment is in the form of Grand Tests, Revision Tests, Research, Tutorials, Assignments, Long Cases and Short Cases presentations etc.
2) **Summative Assessments:**
   These are conducted at the end of each term, consisting of Session Examinations conducted on the pattern of UHS annual Prof Exams. These consist of One best type of MCQs and SEQs which has two to three parts require written short essay responses from the students. The MCQs, the SEQs are mostly clinical and scenario based and designed to test the concepts.

b. End of Term Assessment

This will be summative carried out at the end of each academic year.

Assessment Tools:

Various tools selected are as follows according to UHS guidelines.

a. Written Assessment

1) **Multiple Choice Question (MCQ)**
   MCQs are extensively used for in both formative and summative assessment owing to their ability to offer a broad range of examination items that incorporate several subject areas. They are the one best type of MCQs and designed to test factual knowledge, understanding and clinical reasoning.

A multiple choice item consists of a problem, known as the stem, and a list of suggested solutions, known as the choices. The choices consist of one correct or best choice, which is the answer, and incorrect or alternatives, known as distractors. Each MCQ carries one mark. The number of MCQs vary in the Grand Tests, Revision Test and the Session Exams as needed.

2) **Short Essay Questions (SEQs)**

Written assessment formats are the most widely used assessment methods in medical education. Learning outcomes which are mainly based on cognitive domains (knowledge) can be assessed by them.

The SEQs have a statement or clinical scenario followed by two to three questions, which require application of concepts and are thought provoking.

b. Assignments and Presentations

Every month in various departments, topics of clinical significance are given to the students for assignment and presentations for small group discussions (SGD) sessions. These will be a part of formative assessment. Clinico- Basic and Clinico-Pathological Conferences (CPC) are held for preclinical and clinical years, respectively.

c. Practical/Clinical Assessment

1) Objective Structured Practical Exam (OSPE)

A formative OSPE will be held during terms and summative at the end of year. It will consist of laboratory-based and practical questions related to the learning objectives covered in the course. The students will be given feedback after formative assessment.

2) Objective Structured Clinical Exam (OSCE):

A formative OSCE will be held during the term and summative at the end of year. It will consist of clinical and practical questions related to the learning objectives covered in the course. The students will be given feedback after formative assessment.

3) Long Case

At the end of fourth and final year each subject will be assessed by a long case. Daily encountered problems will be the case scenarios for which students will be trained during formative assessment in clinics.

4) Structured Viva

At the end of examination an integrated viva will be taken in which relevant specialists will sit and ask questions. There will be guidelines for examiners to follow.

5) Log Books

In case of log books, required entries will be countersigned by observer. It will be criterion referenced whereas the students will have to fulfill the following criteria: for example assignments, case presentations in wards, departmental log books.

6) Observation

Internal Assessment

The progress report from teachers will have separate column about behavior and attitude of students in each term in addition to academic record with minimum pass of 50%.

Internal Assessment

The progress report from teachers will have separate column about behavior and attitude of students in each term in addition to academic record with minimum pass of 50%.

The question papers are prepared in secrecy and approved by the Principal. The department then gets sufficient copies made in secrecy and submits the same to the directorate of Medical Education 24 hours before the scheduled test / exam. On the day of the examinations these papers along with the answer sheets are collected from the DME and taken straight to the examination hall where they are opened and are distributed to the students for attempting the question.

After the papers have been solved, the MCQs are marked immediately and the SEQs marked and submitted within two days (except for revision tests where the results have to be submitted within 24 hours) from here, the assessment system as envisaged in the earlier paragraphs is applied.

Every test / examination is supported by keys both for MCQs and SEQs. Adequate time is air marked for key discussion in which the member of the faculty explains to the class how in fact they should have attempted the MCQs and SEQs. This gives an opportunity to the class to make the assessment of how they have attempted the paper and what mistakes they have made and how not to repeat them in future.

Avicenna Medical College endeavors to implement the assessment system of the UHS subject based curriculum as it is in vogue at present by implementing the curriculum with the basic ingredients of assessment implementation as follows:

a. Grand Test
b. Revision Test
c. Session Examinations
d. OSPE
e. OSCE
f. Viva
g. Log books / Copies
h. Assignments
i. Research work
j. Tutorials
k. Long case
l. Short case

Practical Assessments

The regulations for the preparation and conduct of practical assessments vary between subject areas. Where regulations have not been specified they have to be put up to the Academic Committee.

Clinical Assessment

The clinical assessment is carried out in the following forms:

a. Scenario based Clinical Oriented MCQs
b. Scenario/Clinical based SEQs/SAQs
c. On-Patient training viva
d. Ward tests
e. OSPE
f. OSCE

Assessment Framework

The framework for assessment involves the University guideline of:

a. Pass marks 50%
b. Equal marks for theory and for practical
c. Internal Assessment 10% to be awarded by the college
d. Allocation of marks as under

Allocation of Marks

Sr.	Subject	Marks Theory	Marks Practical / OSPE / OSCE	Remarks
1	Anatomy	100	100	Internal assessment 10%
2	Physiology	100	100	Internal assessment 10%
3	Biochemistry	100	100	Internal assessment 10%
4	Islamiyat & Pak Studies	100	-	
5	Pathology	150	150	Internal assessment 10%
6	Pharmacology	150	150	Internal assessment 10%
7	Forensic Medicine	100	100	Internal assessment 10%
8	Community Medicine	150	150	Internal assessment 10%
9	Special Pathology	150	150	Internal assessment 10%
10	ENT	100	100	Internal assessment 10%
11	Ophthalmology	100	100	Internal assessment 10%
12	Medicine	200	300	Internal assessment 10%
13	Surgery	250	250	Internal assessment 10%
14	Gynae	150	150	Internal assessment 10%
15	Paeds	100	100	Internal assessment 10%

16	Behavioral Sciences	100	100	Internal assessment 10%

Grand Test: The syllabus of each subject for which the table of specification has been formulated in detail is divided into various topics and grand tests are held after the topic has been covered in theory, practical and in tutorial classes. The grand test is the first exposure of the students towards assessment of his/her knowledge and skills and is held once only for each topic covered as the syllabus goes along. The grand test has the following ingredients:

a. MCQs 45% marks
b. SEQs 45% marks
c. Viva / Copy 10% marks

Note: The DME maintains a record of all grand tests along with the keys to the MCQs and SEQs and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills.

Revision Test: The revision tests are designed to precede every session exam and they are aimed at breaking up the syllabus and covering the same in small bits so that the students can have exhaustive study of the portion of the syllabus to be tested upon. The schedule of revision test is decided jointly by the Assessment Committee and the students' class representatives so that the student input is brought into consideration. In this case the students' representatives include the weak students, the average ones and good students. And this mix ensures that adequate time is provided to weak students to do exhaustive studies.

Depending upon the syllabus covered. 8 to 10 revision tests are held in preparation for the session exams. The contents of the revision tests are:

a. MCQs (30) 30 marks
b. SEQs (6) 30 marks

Note: The DME maintains a record of all grand tests along with the keys to the MCQs and SEQs and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills. Four sets of revision tests are held annually. One each before the early session, mid-session, late session and/or send-up examination.

Session Examination: As per the annual planner and schedule, three session exams are held every year and these are generally held in March, June and August each year. The late session examination is held in August and as an extra opportunity for the students to qualify the send-ups for the border line cases is only held one month before the prof exam. The following session exams are held:

a. Early Session Examination — 50% of syllabus
b. Mid-Session Examination — 85% syllabus
c. Late Session Examination — 100% syllabus
d. Send-up Examination — For the very weak

The details of the session examination are as under

a. Theory - 50% marks divided as under
    1) MCQs — 45% of theory marks
    2) SEQs — 45% of theory marks
    3) Log book / copy — 10% of theory marks

b. OSPE/OSCE/Viva – 50% marks

Note: The DME maintains a record of all session exams along with the keys to the MCQs and SEQs and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills. Four sessions examinations are held annually.

OSPE (Objective Structured Practical Examination): This depicts the scenario based clinical setting and various stations are arranged. The student has to go from one station to the other to answer the question or to display his practical skill. This is aimed at assessing both the knowledge and skills of the student. The format and the standard of the scenario based problems/questions are in line with the standards prescribed by the University of Health Sciences.

Note: The DME maintains a record of all OSPEs along with the keys to the OSPE and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills. Sample OSPE paper is attached as **Annexure-B**. Since OSPE is a part of session exams therefore four sessions of OSPE are held each year.

OSCE (Objective Structured Clinical Examination): This depicts the scenario based clinical setting and various stations are arranged. The student has to go from one station to the other to answer the question or to display his clinical skills. This is aimed at assessing both the knowledge and skills of the student. The format and the standard of the scenario based problems/questions are in line with the standards prescribed by the University of Health Sciences.

Note: The DME maintains a record of all OSCEs along with the keys to the OSCE and the results. These results are used for the calculation and assessment of each student in terms of

their acquisition of knowledge and skills. Sample OSCE paper is attached as **Annexure-C**. Since OSCE is a part of session exams therefore four sessions of OSCE are held each year.

Viva: This is an oral examination to which the student is subject to be examined by two members of the Faculty one acting as the internal examiner and the other acting as the external examiner. The student is grilled in these oral questioning sessions. The student is asked on various clinical aspects to ascertain his knowledge.

Note: The DME maintains a record of all Viva and the results. These results are used for the calculation and assessment of each student in terms of their acquisition of knowledge and skills. Since Viva is a part of session exams therefore four sessions are held each year.

Copies and Log Books: Whereas copies are maintained in 1st 2nd and 3rd year of the basic sciences, the log books are maintained for the 4th year and the final year for the clinical subjects. The completion of the copies and the log books is mandatory and these have to be produced before the internal and the external examiner on all session examinations and annual Prof exam. Copies and log books carry 10 marks and are a valid record for the purpose of assessment besides being a record of the students' clinical exposure.

Assignments: These are normally generated by the Community Medicine and the Department of Medicine in which the departments give assignments for the students to be completed in their own time. Assignments are included as a part of practical assessment and left to the discretion of the Head of Department.

Research work: The Department of Community Medicine as a part of its Curriculum train the students in carrying out research. These research projects are covered in Standard 12 – Research & Scholarship and research records are available in the Department of Community Medicine. Research works are included as a part of practical assessment and left to the discretion of the Head of Department.

Tutorials: These are held before every grand test to clear the concepts of the students on the subject. The performance of the students in the tutorials is included in the viva assessment.

Long Case and Short Case: This system of OSPE and OSCE is to ascertain the clinical acumen of the student. These are held with the session examinations and form of a part of the practical/clinical assessment.

Notification of Results

The Assessment Committee will display result on notice board as well as the results are sent through SMS to the father of the student.

Results as hard copy will also be sent to parents after each term.

Conducting Examinations and Assessments

Conducting Examinations and Assessments According to University of Health Sciences Guidelines. In all examinations and assessments, the conditions underpinning the examination or assessment shall be displayed on concerned department notice boards to students prior to the examination or assessment taking place.

Note: *Any requests for special assistance example reader/writer are to be made prior to the examination or assessment.*

g. Introducing students to the system of simulated and standardized patients

Response to Parents:

Parents are kept informed about the result of each student. The results are dispatched as follows:

a. Grand Test:	by SMS
b. Revision Test:	by SMS
c. Session Examinations:	as a report containing the results of all grand tests of all subjects for that class. Three session exam reports are sent. Reports of each session for each class are attached as **Annexure-I**.
d. OSPE	Included in the session result
e. OSCE	Included in the session result
f. Viva	Included in the session result
g. Log books / Copies	Included in the session result
h. Assignments	Included in the session result
i. Research work	Included in the session result
j. Tutorials	Included in the session result
k. Long case	Included in the ward test / clinical test
l. Short case	Included in the ward test / clinical test