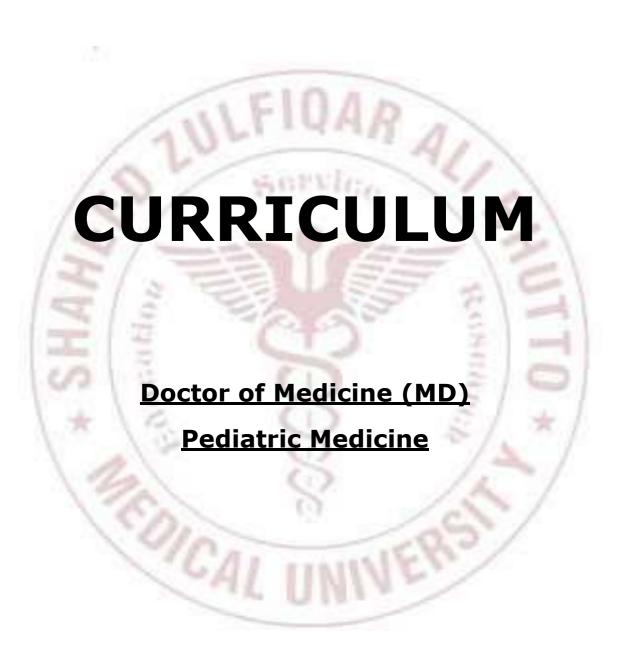


PEDIATRIC MEDICINE

Residency Training Program
Leading to the degree of

Doctor of Medicine (MD)

SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY ISLAMABAD



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ROAD MAP OF MD Pediatric Medicine (A Brief Summary)

GENERAL INFORMATION AND PROGRAM GOALS:

University offer a 04 year MD program in the field of Pediatric Medicine. This program intends to attract candidates that have an interest in pediatric diseases, pathologies, defects and related research methodologies. The curriculum focuses on formal teaching & training as well as practical fieldwork.

This MD program aims to train and equip the post-graduate students with all the necessary knowledge & skills, at par with international standards, required to be a leader in the field of Pediatric Medicine. The candidates, upon graduation, will be expected to demonstrate a high level of expertise in the field of pediatric medicine with a more specific focus on community oriented diseases.

COURSE DESCRIPTION:

A total of one hundred and twenty eight (128) credit hours of instruction and supervised activities are distributed over four years academic period. This comprises approximately 1728 contact hours of instruction and approximately 6672 scheduled hours including formal didactic, clinical, research and laboratory experience.

FIRST YEAR MD		
ID	Title	Credit Hours
PM-01	Common Pediatric Emergencies	12
PM 02	Pediatric Procedures	5
PM -03	Growth and Nutrition	5
PM -04	Neonatology	2
PM -05	Cardiovascular System	2
PM -06	Respiratory System	2
PM -07	Gastrointestinal system	2

PM -08	Genitourinary system	2			
	Total				
	SECOND YEAR MD				
ID	Title	Credit Hours			
PM-01	Common Pediatric Emergencies	5			
PM-02	Pediatric Procedures	3			
PM-03	Growth and Nutrition	10			
PM-04	Neonatology	2			
PM-05	Cardiovascular System	4			
PM-06	Respiratory System	4			
PM-07	Gastrointestinal system	2			
PM-08	Genitourinary system	2			
1	Total	32			
	By University THIRD YEAR MD (Graduate assistantship)				
ID	Title	Credit Hours			
PM-05	Cardiovascular System	1 /			
PM-06	Respiratory System	3			
PM-07	Gastrointestinal system	1			
PM-08	Genitourinary system	2			
PM-09	Central Nervous System	10			
PM-10	Infectious diseases/Immunity	5			
PM-11	Rheumatologic Disorders	3			
PM-12	Genetic Disorders	3			
PM-13	Endocrine/Metabolic Disorders	2			
PM-14	Specialty Journals	2			
	Total	32			
	FOURTHS/FINAL YEAR MD (Graduate assistantship)				
ID	Title	Credit Hours			
PM-01	Common Pediatric Emergencies	1			

PM-05	Cardiovascular System	2
PM-07	Gastrointestinal system	1
PM-12	Genetic Disorders	1
PM-13	Endocrine/Metabolic Disorders	8
PM-15	Otorhinolaryngology	5
PM-16	Pediatric Ophthalmology	3
PM-17	Hematology/Oncology	5
PM-18	PM-18 Pediatric Surgery	
PM-14	Specialty Journals	3
	Total	32
Grand Total (First + Second + Third + Final Year)		
Exit/Final Examination		

By University

Requirements of MD Degree for Graduate students Enrolled in the Program

- Fulfillment of University requirements for postgraduate study.
- Four (4) years of consecutive full time advanced study and clinical training.
- Complete and approved master's thesis based on original research during the course of study in an area related to specialty, suitable for publication in a reputable dental journal.
- Must complete all didactic & clinical work in the required curriculum and satisfactorily pass all the University examinations.
- A minimum of 60% must be earned in all work/examinations attempted in the master's program. A grade below this will require re-examination.

A complete road map for postgraduate MS/MD/MDS can be seen on University website at http://www.szabmu.edu.pk/content/downloads/road-map-for-postgraduate-residents.pdf



INTRODUCTION

The residency program in Pediatric Medicine is a four-year course covering all aspects of Pediatric Medicine and leading to the degree of Doctor of Medicine (MD) in Pediatrics.

This curriculum has been developed on the basis of SPICES model which is indicative of the competencies required at the varying levels of training within the specialty together with the knowledge, skills and attitudes achieved by the trainee in acquiring those competencies. The training has been based on the current thinking and the requirements for

- Greater protection of the public interest by providing clear information as to the level of training achieved.
- Improved access to specialty training than general practitioners.
- Greater flexibility of training through the availability of multiple instructors.
- Producing a competent workforce with the appropriate skills and knowledge necessary to meet the varying levels of treatment complexity, as well as considering the relative need and demand of potential patients.
- Acquire the experience to carry out research projects, critically evaluate scientific publications and communicate clinical and research papers in journals and conferences.



RATIONALE:

Need of program

This training program is structured keeping in view the need of the society. Following needs are identified through formal and informal discussion with the stakeholders.

- Deficiency of the quality health care providers to public especially in remote areas in the field of pediatrics.
- Dearth deficiency of competent faculty in the field.
- Deficiency of state of the art pediatrics trainingcenter.

Purpose of training

The purpose of this curriculum is to guide the training of an individual to the core level of competence required for specialist and consultant. This training will produce consultant who are specialists in their field.

Context of Training

To provide an organized educational program with guidance and supervision, a structured training program will be followed so that each trainee is exposed to different aspects of the subject and acquires special knowledge and skill as expected in this program. The training will provide a basis for the candidate to develop into a lifelong learner who is capable of self-reflection and self-directed learning. It will provide a basis for further ongoing development in the field.

Duration of training

The program leading to MD in Pediatric Medicine will be of 04 years full time.





AIMS & OBJECTIVES

Aims of Training

The candidate should acquire and become proficient in the skills required for pediatric medicine practice with an emphasis on multidisciplinary treatment planning, disease prevention, diagnosis and provision of advanced treatment techniques for those clinical cases meriting specialist care. The candidate should demonstrate attitudes necessary for the achievement of high standards of pediatric medicine practice both in relation to the health needs of the population and to his/her own personal development.

Learning Objectives

On completion of training, the trainee will be able to achieve following aptitudes.

Knowledge

- To evaluate patients with common pediatric problems encountered on day to day basis in the outpatient setting in most parts of Pakistan
- To perform common pediatric procedures like Lumbar puncture, intravenous cannulization, paracentesis, ventricular tap, liver biopsy, renal biopsy, stitching of minor wound, applying plaster of paris casts, cardiopulmonary resuscitation, endotracheal intubation, chest intubation and blood, urine and stool sampling.
- To manage common pediatric emergencies reasonably well.
- To interpret commonly ordered investigations like x-ray, ECGs, CT scan, MRI, biochemistry etc.
- To setup oral rehydration therapy (ORT) corner, routine vaccination services, basic health education, nutritional rehabilitation and

growth monitoring services in small towns and periphery.

- Referral of patients with emergency problems in time.
- To communicate effectively with the parents/attendants in different situations.
- To act as a trend setter and team leader within the community.
- To be well versed in IMNCI and other programmes.
- To conduct research and to write publications/dissertations.

Skill

- Take history and conduct clinical examination and investigations that allow collection of information needed to evaluate the oral and related medical conditions for all patients.
- Determine the differential, provisional and definitive diagnosis by interpreting and correlating findings from the history, clinical & radiographic examination together with other diagnostic tests.
- Devise treatment plans specific to the needs and expectations of individual patients.
- Execute conventional and contemporary techniques of all the domains of Pediatric medicine.
- Demonstrate competency in teaching methods, use of information technology, appraisal and assessment techniques and development of appropriate learning methods for lifelong learning.
- Show evidence of ability to undertake research.

Attitude

- Demonstrate a professional and ethical approach to patient care.
- Demonstrate a professional attitude to all the members of the team.
- Demonstrate full and clear understanding of equality and diversity legislation as it applies to the workplace and to professional practice.



ENTRY CRITERIA:

Eligibility to apply for MD Pediatric Medicine

- Candidate must possess BDS or equivalent degree and one year house job from PMDC recognized Institutions.
- Permanent valid registration with PM&DC.
- Declared successful in MD Part-I for University programs.
- In case of foreign candidate, valid registration with Medical Council of their country of origin must be produced.

Required Documents

Attested photo copies of the following documents must be attached with application form:

- Computerized National Identity Card (CNIC)
- Domicile certificate
- Matric/O Level, FSc/A Level, Certificates or equivalent
- BDS degree with detail marks certificates of all professional
- BDS Attempts certificates of all professional
- NEB pass certificate (for foreign graduates)
- House Job certificates
- PMDC valid permanent registration certificate
- MDS Part-I passing certificate
- Experience Certificates (if any)
- Migration Certificate (To be produced at the time of admission)

Admission Procedure

 Details of admission procedure is available on university website at http://www.szabmu.edu.pk/admission/postgraduate-admission



CONTENT OF LEARNING:

The program outline addresses both the knowledge needed in Pediatric Medicine and allied medical specialties in its scope. A minimum of four years of formal training through a graded system of education as specified will equip the trainee with knowledge, skill and attitude at its completion to be able to practice basic pediatrics.

The topics are considered as under:-

COMMON PEDIATRIC EMERGENCIES

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide information about and experience in: Cardiopulmonary Resuscitation/Neonatal Resuscitation Shock	 The trainee should be able to: Examine the patient thoroughly Make a differential diagnosis 	 Workplace (clinical) experience Attend trainee seminars within department Attendance at 	Workplace based assessments (CBD, DOPS)
 Management of dehydration Congestive Cardiac failure/Cyanotic child Child with respiratory distress/Status asthamaticus Management of convulsing child Management of comatose child Child with acute abdomen Management of an uric child Management of an Acidotic child Management of common acute Poisonings/snake bite 	 Perform relevant diagnostic tests & carry out investigations to establish definitive diagnosis Devise strategies and plans based on the likely prognosis and outcomes of the various treatment options, relating this to prognosis without treatment and establishing a resultant priority and sequence of treatment 	suitable courses • Attendance at suitable meetings • Independent study	Written Examination/ VIVA

Pediatric Procedures

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in performing basic Pediatric procedures	 Intravenous cannulation Endotracheal intubation Lumbar puncture Pleural tap Chest intubation Ascitic tap Ventricular tap Liver biopsy Collection and dispatch of common samples Minor surgical procedures Cardiocentesis Renal biopsy Exchange Transfusion 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Self-directed & Independent study 	 Workplace based assessments (CBD, DOPS) Written Examination/VIVA

Growth and Nutrition

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: Growth monitoring Nutritional assessment Approach to a child with failure to thrive Common vitamin deficiencies Malnutrition.	 Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non- 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department and wards Attendance at suitable courses Attendance at suitable combined clinic-pathological meetings Self-directed & Independent study 	 Workplace based assessments (CBD, DOPS, MSF) Written Examination/VIVA

* SHAMA	urgent care needs. Respect patient confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice. An appreciation of when to discuss patient management
	with colleagues from other hospital clinical specialties.

Neonatology:

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: The "Sick baby" Neonate with respiratory distress Evaluation and management of child with birth asphyxia An approach to child with neonatal jaundice Neonatal seizures Heart failure in newborn Antenatal/postnatal screening tests Common neonatal surgical problems Inborn error of metabolism	 The trainee should be able to: Take record and interpret an accurate history from patientsof any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. Respect patient confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Extra mural training Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Independent study 	 Workplace based assessments (CBD, DOPS, Mini-CEX, MSF) Written Examination/VIVA OSCE

 Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, includingnonmedical professionals andrecognize good advice. 	
 An appreciation of when to discuss patient managementwith colleagues from other hospital clinical specialties. 	

Cardiovascular System:

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • Approach to child with heart failure • Evaluation of child with cyanosis • Evaluation of child with abnormal/additional heart sounds • Rheumatic fever, Myocarditis, Cardiomyopathy	 Take record and interpret an accurate history from patientsof any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Extra mural training Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Role Modelling Independent study 	 Workplace based assessments (CBD, DOPS, Mini-CEX, MSF) Written Examination/VIVA OSCE

 Respect patient confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, includingnonmedical professionals andrecognize good advice. 	
 An appreciation of when to discuss patient managementwith colleagues from other hospital clinical specialties. 	

Respiratory System:

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • Standardized ARI Case Management • Recurrent wheezing • Recurrent chest infections • Strider in children	 Take record and interpret an accurate history from patientsof any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. Respect patient confidentiality. Maintain cultural awareness and 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Extra mural training Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Role Modelling Independent study 	 Workplace based assessments (CBD, DOPS, Mini-CEX, MSF) Written Examination/VIVA Portfolio OSCE

 identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, includingnonmedical professionals andrecognize good advice. 	
 An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	

Gastrointestinal System:

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: Standard case management of Diarrhoeal diseases including persistent diarrhea Chronic liver disease/portal hypertension Hepatosplenomegaly Abdominal pain Abdominal mass Persistent vomiting Constipation Chronic diarrhea Celiac disease	 Take record and interpret an accurate history from patientsof any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Extra mural training Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Role Modelling Independent study 	 Workplace based assessments (CBD, DOPS, Mini-CEX, MSF) Written Examination/VIVA Portfolio OSCE

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o w c p	show respect for others' pinions. Be conscientious and work cooperatively. Respect olleagues, including nonmedical professionals and recognize good dvice.	
to n c h	an appreciation of when o discuss patient nanagementwith olleagues from other ospital clinical pecialties	

Genitourinary System

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in	 The trainee should be able to: Take record and interpret an accurate history from patientsof any age and communicate effectively. Know where to refer. Seekadvice if unsure. Recognizewhen input from another specialty is required for individual patients. Work effectively with otherhealth care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. Respect patient confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. Demonstrate willingness andability to teach students andhealthcare 	 Systematic simulation laboratory exercises Workplace (clinical) experience Attendance at suitable courses Attend trainee seminars within department Attendance at suitable meetings Independent study 	 Workplace based assessment s (DOPS, Mini-CEX, MSF) OSCE

-		,	
	colleagues soundhistory skills where		
	appropriate.		
	 Show respect for others' opinions. Be 		
	conscientious and work cooperatively.		
	Respect colleagues, including nonmedical		
	professionals andrecognize good advice.		
	An annuariation of whom to		
	An appreciation of when to		
	discuss patient managementwith		
	colleagues from other hospital		
	clinical specialties		

Haematology and Oncology

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill about: • Approach to a child with common pediatric malignancies • Approach to child with bleeding diathesis • Transfusion of blood products • Hemolytic anemia • Iron Deficiency anemia	 Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying 	 Systematic simulation laboratory exercises Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department & wards Attendance at suitable courses Attendance at suitable meetings Independent study 	Workplace based assessments (DOPS, Mini-CEX, MSF) OSCE

diagnosis and differentiate patients with urgent and non urgent care needs.	
 Respect patient confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. 	
 Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. 	
 Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice. 	
 An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	

Endocrine / Metabolic Disorders

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • An approach to a child with ambiguous genitalia • An approach to a child with short stature • An approach to a child with	Take record and interpret an accurate history from patients of any age and communicate effectively. Take record and interpret an accurate history from patients of any age and communicate effectively.	 Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within 	Workplace based assessments (CBD, DOPS, Mini-CEX, MSF)
polyuria and polydipsia • Hypothyroidism/Hypothyroidis m	 Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. Respect patient confidentiality. Maintain cultural awareness and 	department and wards. • Attendance at suitable courses • Attendance at suitable meetings • Self-directed & Independent study	Written Examination/ VIVA

 identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice. An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	
	Portfolio Long & Short
	case
	OSCE
35	

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Central Nervous System

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: Developmental assessment Approach to a child with developmental delay/regression of milestones Approach to child with recurrent afebrile seizures Approach to a child with acute flaccid paralysis Approach to a floppy infant Approach to a child with big head Approach to a child with small head Stroke in children Approach to children with headache	 Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. 	 Systematic simulation laboratory exercises Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department & wards Attendance at suitable courses Attendance at suitable meetings Independent study 	 Workplace based assessments (DOPS, Mini-CEX, MSF) OSCE

 Respect patient confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and 	
 An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	

Rheumatological disorders

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • Child with a Limp/Joint swelling • JIA, SLE, Septic arthrits	 Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. Respect patient 	 Systematic simulation laboratory exercises Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Independent study 	 Workplace based assessments (CBD, DOPS, Mini-CEX, MSF) OSCE

 confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. 	
 Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice. 	
 An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	

<u>Otorhinolaryngology</u>

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • Approach to the child with hearing impairment • Common ENT problems	 Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. Respect patient 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Independent study 	 Workplace based assessments (CBD, DOPS) Written Examination/VIVA

confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. • Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate.	
 Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice. 	
 An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	

Ophthalmology

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • Evaluation of child with visual impairment/squint • Common Eye problems	 Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. Respect patient 	Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Independent study	 Workplace based assessments (CBD, DOPS) Written Examination/VIVA

confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. • Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate.	
 Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice. 	
 An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	

Child Psychiatry

Objectives Learning Outcom	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • Evaluation of child with visual impairment/squint • Common Eye problems • Know where to refe advice if unsure. Re when input from an specialty is required individual patients. • Work effectively with health care profession. • Describe the nature and risks of planned procedure. • Assess the likelihood significant underlyind diagnosis and different patients with urgent urgent care needs. • Respect patient	experience Clinical cases for observational and personal treatment Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Independent study d of a agentiate	Workplace based assessments (CBD, DOPS) Written Examination/VIVA

confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. • Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate.	
Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice.	
 An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	

Paediatric Surgery

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • Common pediatric Surgical problems. • Evaluation of knowledge skills and Research.	 Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Independent study 	 Workplace based assessments (CBD, DOPS) Written Examination/VIVA

 Respect patient confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice. 	
 An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties 	

Genetic Disorders

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: • Approach to "Dysmorphic child" • Genetic investigations and counseling	 Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non urgent care needs. Respect patient 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Independent study 	 Workplace based assessments (CBD, DOPS) Written Examination/VIVA

	confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others'
NHS.	opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice.
	An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties
	CAL UNIVERS

Infectious Diseases / Immunity

Objectives	Learning Outcomes	Teaching & Learning Methods	Assessments
To provide in depth knowledge and skill in: Immunization Evaluation of child with FUO AFP Hepatitis A, B, C and E Approach t a child with macalopapular Rash Approach to c child with resicular Rash Childhood tuberculosis HIV	 Assess and examine a patient with facial trauma with interpretation of radiographs. Take record and interpret an accurate history from patients of any age and communicate effectively. Know where to refer. Seek advice if unsure. Recognize when input from another specialty is required for individual patients. Work effectively with other health care professionals. Describe the nature, benefits and risks of planned procedure. Assess the likelihood of a significant underlying diagnosis and differentiate patients with urgent and non 	 Workplace (clinical) experience Clinical cases for observational and personal treatment Attend trainee seminars within department Attendance at suitable courses Attendance at suitable meetings Independent study 	 Workplace based assessments (CBD, DOPS) Written Examination/ VIVA

 Respect patient confidentiality. Maintain cultural awareness and identity. Value patient comprehension and views. Demonstrate willingness and ability to teach students and healthcare colleagues sound history skills where appropriate. Show respect for others' opinions. Be conscientious and work cooperatively. Respect colleagues, including nonmedical professionals and recognize good advice. 	
An appreciation of when to discuss patient management with colleagues from other hospital clinical specialties	

Allied specialties

Trainee will be rotating in the following department for the clear understanding of the basic concepts. Mandatory rotations for MD Pediatric Medicine will be as follow

0	East Medical Unit	3 Months
0	West Medical Unit	3 Months
0	Department of Neonatology	3 Months
0	Outpatient/Accident and Emergency	3 Months
0	Infectious Diseases Unit	3 Months
0	Pediatric Oncology/Hematology	3 Months
0	PICU	3 Months
0	Pediatric Surgery/	
0	Pediatric Cardiology/Perinatology	2 Months each
0	These rotations will continue till comp	letion of program.

^{*}Outcomes of mandatory rotations are attached as "Annexure B"

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Research

The resident would be required to undertake a research project and to present the result for examination in the form of a thesis. They would be encouraged to present and publish the result of the project in refereed journals.

The guideline for synopsis and thesis writing is available on University website at





ASSESSMENT

Assessment of trainees will cover the cognitive, psychomotor and affective domains. It will take two forms

- Formative Assessment
- Summative Assessment

Formative Assessment

It is the continuous assessment of progress and competence. It will be conducted through workplace based assessment throughout the training. Assessment will be undertaken by a range of assessors and will cover a range of procedures appropriate to the stage of training. Formative assessment will include

- Directly observed practical skills (DOPS)
- Case based discussion (CBD)
- Mini clinical examination exercises (Mini-CEX)
- Multiple source feedback (MSF)

Summative Assessment

Summative assessment will be held twice

- Mid Term Assessment (MTA) Examination (At the end of 2nd year)
- Final/Exit Examination (At the end of Final Year)

The level of performance required for passing the exam will depend on the knowledge and skills necessary for acceptable performance and will not be adjusted to regulate the number or proportion of persons passing the examination. The pass point will be determined by careful analysis and judgment of acceptable performance.

Record of Clinical Cases

The trainees will be required to keep a record of the allocated clinical work in a log book. It will be the responsibility of trainee to keep the log book up to date with the signature of the faculty certifying the work.



TABLE OF SPECIFICATION

Table of specification for Mid Term Assessment (MTA) and Final (Exist) Examination is here as under

TOS FOR THEORY EXAMINATION

At the end of training candidate will be allowed to appear in the final examination having the following components

Detail of Theory Papers

Topics included in paper 1

- 1. Pediatric Cardiology (20 MCQs)
- 2. Pediatric Pulmonology (20 MCQs)
- 3. Pediatric Gastroenterology & Hepatology (20 MCQs)
- 4. Pediatric Hematology & Oncology (20 MCQs)
- 5. Pediatric Neurology (20 MCQs)

Topics included in paper 2

- 1. Pediatric Nephrology (20 MCQs)
- 2. Neonatology (20 MCQs)
- 3. Developmental Pediatrics (15 MCQs)
- 4. Pediatric Endocrinology (15 MCQs)
- 5. Pediatric Dermatology (10 MCQs)
- 6. Pediatric Rheumatology (05 MCQs)
- 7. Pediatric Psychiatry (05 MCQs)
- 8. Pediatric Ophthalmology & Otolaryngology (10MCQs)

TOS for Final/Exit Examination MD (Pediatric Medicine)

Time

3 hours for each paper

Standardized key will be developed before hand and all marking will be done strictly according to the key. Both the theory papers will be conducted on the same day i.e. from 0900 - 1200 and 1400 - 1700.

- 2. The candidates scoring a score of 60% marks in theory paper will pass the written part of the final examination and will become eligible to appear in the clinical and oral examination
- 3. The written part result will be valid for three consecutive attempts for appearing in the Clinical and Oral Part of the Final Examination. After that the candidate has to re-appear in the written part of the Final Examination
- 4. Viva voce examination should have the following components:
- a. Long case (100 marks)
- b. Short case (100 marks) 04 short cases
- c. Modified table viva/TOACS (100 marks) at least 10 stations
- d. Defense of thesis (100 marks)

The candidates scoring 60% marks in each component of the Clinical & Oral Examination will pass the Final Examination.

Examination will strictly adhere to the prescribed curriculum and learning objectives. An anonymous feedback will be sought from all candidates at the end of each exam for critical self evaluation.

To make the examination credible there should be list of approved examiners. Each candidate of examination will be evaluated by external examiners. The evaluation of each candidate must be done by all the examiners.

For each examination at least 8 external examiners will be invited to monitor the conduct of examination.

The result of successful candidates will be announced within one week.

5) The internal examiners will not examine the candidates for whom they have acted as Supervisor and will be substituted by other internal examiner.

Thesis Examination

- a) The candidate will submit his/her thesis at least 06 months prior to completion of training.
- b) The Thesis along with a certificate of approval from the supervisor will be submitted to the Registrar's office, which would record the date /time etc. and get received from the Controller of Examinations within 05 working days of receiving.
- c) The Controller of Examinations will submit a panel of eight examiners within 07 days for selection of four examiners by the Vice Chancellor. The Vice Chancellor will return the final panel within 05 working days to the Controller of Examinations for processing and assessment. In case of any delay the Controller of Examinations would bring the case personally to the Vice Chancellor.
- d) The Supervisor will not take part in evaluation of thesis.
- e) The Controller of Examinations will make sure that the Thesis is submitted to examiners in appropriate fashion and a reminder is sent after every ten days.
- f) The thesis will be evaluated by the examiners within a period of 06 weeks.
- g) In case the examiners fail to complete the task within 06 weeks with 02 fortnightly reminders by the Controller of Examinations, the Controller of Examinations will bring it to the notice of Vice Chancellor in person.
- h) In case of difficulty to find an internal examiner for thesis evaluation, the Vice Chancellor would, in consultation with the concerned Dean, appoint any relevant person as
- i) There will be two internal and two external examiners. In case of difficulty in finding examiners, the Vice Chancellor would, in consultation with the concerned Deans, appoint minimum of three, one internal and two external examiners.
- j) The total marks of thesis evaluation will be 100 and 60% marks will be required to pass the evaluation.
- k) The thesis will be considered / accepted, if the cumulative score of all the examiners is 60%.
- I) The clinical training will end at completion of stipulated training period but the candidate will become eligible to appear in the Final Examination at completion of clinical training and after acceptance of thesis. In case clinical training ends earlier, the slot will fall vacant after stipulated training period

Award of MD Pediatrics Degree

After passing written examination, TOACS, short and long cases and defense of thesis candidate will be awarded with MD pediatrics degree.



LEARNING RESOURCES

List of Essential Readings

Textbooks: Recommended

Nelson Textbook of Pediatrics, 21st Edition, 2019

Textbooks or Handbooks: Supplemental

Illustrated Textbook of Pediatrics, 5th Edition. eds. Lissauer, Tom and Clayden, Graham, 2018.

Pediatric Clinical Skills, 4th Edition, Goldbloom R, 2011.

The Harriet Lane Handbook, 21th Edition, eds. Kahl, L and Hughes, Helen, 2017

Examination Pediatrics 5th Edition by Wayne Harris

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Web Resources:

Pubmed Medscape Uptodate



PROGRAM EVALUATION

The program director will continue to ensure that the program is fit for purpose in that it provides the trainee with the appropriate knowledge, skills, attitudes and competencies required to meet the requirements of a specialist.

Program evaluation will be carried out after every two years according to the CIPP model of evaluation. Any suggested updates will only be made following appropriate consultation with stakeholders, including trainees and lay members.



ANNEXURE A

Supervisor Evaluation Form

Date:	Supervisor's Name:	
Your Name:	Signature:	

Evaluations of supervisors by Trainee's are an important process for providing supervisors with an assessment of the quality of their work. Annual supervisor assessments can be used to compliment a supervisor for doing a good job. Annual assessments can also identify areas for improvement. Evaluations can strengthen communications between supervisors and trainee's.

Trainees have three options for evaluating supervisors:

- 1) Completing the Evaluation of Supervisor form.
- 2) Writing a signed memo evaluating the supervisor.
- 3) Meeting with the supervisor's department head.

Evaluations received by the deadline (January 15) will be incorporated into the annual review of the supervisor. Forms and/or signed memos should be sent to the Human Resources department.

* * *

(E=Excellent, G=Good, S=Satisfactory, N=Needs Work, U=Unsatisfactory, Ø=No Opinion)

Performs Supervisory Functions

Provides on-going positive and negative feedback	E	G	S	N	U	Ø
Makes expectations known	E	G	S	N	U	Ø
Is tactful and considerate	E	G	S	N	U	Ø
Promotes teamwork and good working relationships	E	G	S	N	U	Ø
Recognizes and addresses concerns in a timely manner	E	G	S	N	U	Ø
Delegates authority appropriately	E	G	S	N	U	Ø
Provides training of new employees	E	G	S	N	U	Ø
Provides direction of work	E	G	S	N	U	Ø
Communicates openly and honestly with peers, staff and administration	E	G	S	N	U	ø

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Develops Innovative Procedures		0				
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s receptive to new ideas	E	G	S	N	U	Ø
s receptive to questions	E	G	S	N	U	Ø
ncourages initiative and innovation	E	G	S	N	U	Ø
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Recognizes contributions	E	G	S	N	U	Ø
Notivates workers	E	G	S	N	U	Ø
Provides relaxed yet efficient work atmosphere	Е	G	S	N	U	Ø

Comments:

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Encourages staff development

Comments:						
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			100			
Knows the Operations of the Department	artmen	- 2				
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Understands employee workload	E	G	S	N	U	Ø
s alert to potential problems	E_	G	S	N	U	Ø
Keeps staff informed about department and university developments	E	G	S	N	U	ø
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Comments:	1 3			7	-	
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Work Habits	IM	VE				
Acknowledges own limitations and mistakes	E	G	S	N	U	ø
Maintains a positive work attitude	E	G	S	N	U	Ø
Uses time efficiently and effectively	E	G	S	N	U	ø

Demonstrates a good work ethic

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Comments:	

Please use the bottom and back of this sheet as space for expanding on any comments above or to make any additional comments.



Program Evaluation Form

Please use the following scale to indicate your response to the statements below:

SA = strongly agree

 $\mathbf{A} = agree$

N = neither agree/disagree

D = disagree

SD = strongly disagree

The information was presented effectively		Α	N	D	SD
The information presented was practical		Α	N	D	SD
The program provided a good working knowledge of the subject matter presented		Α	N	D	SD
The program has allowed me to acquire practical skills and knowledge to manage my business more effectively and efficiently		Α	N	D	SD
The program attended was sufficient for my purpose		Α	N	D	SD