

# **PROGRAM MD PAEDIATRICS**

**(Revised with effect from 2019-2020 onwards)**

## COURSES

### **Course - I Basic Sciences as Applied to Pediatrics and Growth & Development (U15MDPE01)**

CO1: Application of knowledge of anatomy, genetics and embryology in the practice of pediatrics

CO2: Application of knowledge of physiology and biochemistry in the practice of pediatrics

CO3: Application of knowledge of pathology, microbiology and immunology in the practice of pediatrics

CO4: Application of knowledge of pharmacology in the practice of pediatrics

**Knowledge of applied anatomy, genetics and embryology, physiology and biochemistry in the practice of pediatrics; knowledge of pathology, microbiology and immunology necessary in the community practice of pediatrics.** Brief Knowledge of pharmacology necessary in the practice of pediatric.

### **Course - II General Pediatrics including Neonatology, Preventive and Social Pediatrics (U15MDPE02)**

CO1: Skill in history taking, physical examination and investigations.

CO2: Competency to manage common diseases/conditions in neonates.

CO3: Competency in preventive and social aspects of pediatrics including immunization.

**Practical Skill in history taking, performing physical examination and ordering appropriate investigations. Knowledge in knowing how to manage common diseases/conditions in neonates.**

Competency in performing Neonatal Resuscitation

Competency in managing a floppy child

Failure to thrive

Competency in preventive aspects as well as social aspects of pediatrics including immunization.

### **Course - III Pediatric Specialities (U15MDPE03)**

CO1: Knowledge about Infectious disease, Rheumatology, Psychiatry and Behavioral Sciences aspects of pediatrics.

CO2: Knowledge about Skin, Eye, ENT, Adolescent Health, Critical Care aspects of pediatrics.

CO3: Knowledge about accidents, poisoning, neurology, disabilities, nephrology, endocrinology and gastroenterology aspects of pediatrics.

CO4: Knowledge about Neurology and Disabilities, Nephrology, Hematology and Oncology aspects of pediatrics.

CO5: Knowledge about Endocrinology, Gastroenterology, Respiratory and Cardiovascular diseases as applicable to pediatrics.

**Knowledge on Infectious disease, Rheumatology, Psychiatry, Behavioral Sciences Skin, Eye, ENT, Adolescent Health, Critical care aspects of pediatrics and its application in clinical scenario**

Early detection and management of childhood malignancies

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Long term prognosis in childhood malignancies

Cystic Fibrosis

**Competency in managing accidents, poisoning, neurological disabilities, nephrology, Hematology and Oncology , endocrinology , Respiratory and Cardiovascular diseases and gastroenterological aspects of pediatrics.**

**Course - IV Recent Advances in Pediatrics (U15MDPE04)**

CO1: Uptodate knowledge about recent trends in the speciality.

CO2: Uptodate knowledge in the diagnostic and therapeutic methods in the speciality.

CO3: Uptodate knowledge about the recent publications.

**Recent advances with regards to diagnostic and therapeutic modalities in pediatrics in the international setting . Knowledge of recent trends and publications about pediatrics**

**Soft Skills (U15MDPE05) – Elective Course**

CO1: Function as an effective leader of a team engaged in health care, research or training

CO2: Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing/general physicians and paramedical health workers

CO3: Demonstrate competence in basic concepts of research methodology, and be able to critically analyse relevant published research literature

CO4: Develop skills as a self-directed learner with the attitude to be a life long learner.

CO5: Skill to organise and supervise effectively the chosen and /or assigned health care services

CO6: Skill to communicate appropriately with guardians and children, assisting in their health care decision making

CO7: Skill to practice healthcare ethically, protecting the child at all costs.

CO8: Skill to organise and supervise effectively the chosen and /or assigned health care services

**Training Period and method of training:** Period of training is three years ( 36 months / 6 academic terms), for MD including the period of examination. In addition to the general pediatrics including neonatology, students have to undergo posting in pediatric neurology, pediatric cardiology, pediatric surgery, dermatology, child psychiatry and pediatric hemato oncology departments for specified periods to get required knowledge.

They have to maintain a Log Book from the very beginning to record the day to day activities. It has to be got signed from the concerned faculty.

Each MD candidate has to do a research work under a Guide who shall be a qualified P.G teacher as per the MCI regulations. The thesis should be submitted to the University at least 6 months prior to the beginning of theory examinations

Training programme shall consists of clinical discussions, bed side clinics, symposia Journal clubs, mortality conferences, and thesis presentation.

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**Formal teaching sessions:**

In addition to bedside teaching rounds, at least 2hrs of formal teaching per day are must.

Case presentation 4 days a week

Journal club: once a month

Seminars: once a month

Grand Rounds: Twice a month

Subject Review: Twice a month

Death review meeting : once a month

Clinical pathological conference :once a month

Guest lectures: once a week

Telemedicine programme: Twice a month

Others : CME/PALS/NALS

They have to participate in undergraduate teaching of medical /paramedical students.They have to attend medical camps, work shops CME programmes and National conferences to update the knowledge.

**Eligibility to appear the University Examination:****Eighty percent attendance compulsory for appearing the University examination.**

There will be 4 theory papers of 3 hour duration, covering Developmental pediatrics: growth and development including psychological development, psychological and behavioral disorders, laws relating to children, perinatal pediatrics, preventive pediatrics including child health services and under five clinics, nutrition and nutritional disorders, patho physiology of body fluids and drug therapy. Intensive care in pediatrics, and management of emergencies.

Immunity ,allergy and infectious diseases, parasitic infections, genetic disorders and chromosomal disorders and prenatal factors in disease, inborn error of metabolism. Disorders of digestive system, respiratory system, cardiovascular system. Disorders of blood, urinary system, endocrine system, genital organs, nervous system, muscle, bone and joints, skin and eyes and malignant disorders.

**Allied subjects”**

Anatomy: Applied embryology,Development of major organ systems

Physiology: Applied physiology with regard to major organ systems

Biochemistry: Biochemical basis of diseases in children-Nutritional and metabolic

Pathology: Patho physiology of diseases in children

Microbiology: Clinical microbiology, applied to investigations for diseases in children, serology, staining, cultures

Pharmacology Clinical pharmacology,therapeutics of childhood diseases, Rational drug therapy

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Community medicine: Health care delivery systems-structure and function, health statistics,, National programmes.  
 Pediatric surgery: Recognition and referral of surgical conditions in pediatrics  
 Radiology : Clinical indications and interpretations of X ray, Ultrasound, CT, MRI.  
 Legal and Ethical Medicine: Rights and protection of children, Consumer protection Act, Basic principals of Ethics.

There will be two University examinations in an year with an interval of not less than 4 months and not more than 6 months between the two examinations.

Four theory papers of 100 marks each:

- Paper I: Basic sciences as applied to pediatrics and Growth & Development
- Paper II: General Pediatrics including neonatology,preventive and social pediatrics.
- Paper III: Pediatric specialities
- Paper IV: Recent advances in pediatrics

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Clinical and Viva voce:

The total marks for practical/clinical examination shall be 200.

Clinical examination consists of one long case ( 45 minutes ) for 100 marks and 2 shot cases (30 minutes each) of 100 marks together. Total of 200 marks.

**Viva voce** shall aim at assessing the candidates knowledge and competence about the subject,investigative procedures, therapeutic techniques,and other aspects of the speciality.Total marks for viva voce 100

Total marks for theory 400,Total marks for clinical & viva voce 300

Candidates shall secure not less than 50% marks in each head of passing which shall include (I) Theory (2) Practical including clinical and viva voce examination.

Maximum marks for	Theory (Max.)	Practical (Max.)	Viva (Max.)	Grand Total
MD degree course	400	200	100	700

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#### Recommended Reading

- 1.Nelson- Text book of Pediatrics
- 2.Forfar & Arneils-Text book of pediatrics
- 3.Illinworth-Normal child
4. David G Nathan- Hematology of Infancy & Childhood
- 5.Pediatric neurology-Swaiman.
- 6.Nadas-Pediatric cardiology
- 7.Meharban Singh's Care of the New borns



JOURNALS:

- 1.PCNA
- 2.Arhives of Diseases of Childhood
- 3.Indian Pediatrics
- 4.Indian J of Pediatrics
- 5.Pediatrics
- 6.Journal of Pediatrics
- 7.Acta Paediatrica Scandinavia

References Series

1. Year book of Pediatrics
  - 2.Suraj Gupta's Recent Advances in Pediatrics
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