

A postgraduate in M.D. (Homoeopathy) - Paediatrics shall have:

1. The knowledge to assess the health status of the children coming under his/her care with background of principles of Pediatrics and philosophy of Homoeopathy.
2. The knowledge to provide therapeutic assistance to sick children under his/her care, counsel the parents regarding prevention of sickness and generate awareness in the society for healthy living style for children.
3. The knowledge to co-ordinate with and guide the nursing staff in a hospital for arranging appropriate nursing procedure whenever a child under the Homoeopathic therapy is hospitalized.
4. The knowledge to ask for and interpret relevant diagnostic tests and provides necessary therapeutic or other assistance on the basis of results of such procedures.
5. The confidence to assess and manage children in a state of medical crisis by using ancillary measures till such time as hospitalization in Critical Care Unit may be found.

Aims:

1. Recognize the health care needs of the children in the society in the spirit of Homoeopathic principles.
2. Shall obtain competencies in the field of providing health care to children, so as to achieve a restoration of health.
3. Shall understand the importance of the preventive health care to maintain child health of the society.

4. Shall adapt a scientific temper and unbiased approach to augment self-knowledge to improve the quality of treatment throughout the professional life.
5. Shall develop an open and accommodating attitude to adapt the latest bio-medical discoveries for the improved quality of therapy.
6. Shall develop holistic attitude to correlate the results of bio-medical research with the potential in homoeopathic medicines to project a comprehensive homoeopathic practice.

General objectives:

1. Recognize the importance of pediatrics in the context of health care needs of the community and its adaptability in the practice of homoeopathy.
2. Practice pediatrics ethically and in step with the principles of primary health care and the philosophy of homoeopathy.
3. Demonstrate sufficient understanding of basic sciences relevant to pediatrics.
4. Identify social, economic, environmental, biological, emotional and miasmatic therapeutic, rehabilitative, preventive and promotive measures/strategies.
5. Plan and advice measures for the prevention and rehabilitation of children suffering from disease and disability.
6. Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation.
7. Demonstrate empathy and human approach towards children and their family and exhibit interpersonal behaviour in accordance with the social norms and expectations.

8. Play the assigned role in the implementation of national health programmes, effectively and responsibly.
9. Organize and supervise the chosen/ hospital or the field situation.
10. Develop skill as a self-directed learner recognizes continuing educational needs; select and use appropriate learning resources.
11. Demonstrate competence in basic concepts of research methodology and epidemiology with a special reference to qualitative research, and be able to critically analyze relevant published research literature.
12. Develop skills in using educational methods and techniques as applicable to the teaching of homoeopathic students, homoeopathic general practitioners and paramedical health workers.
13. Functions as an effective leader of a health team engaged in health care, research or training.

As per aphorism 3, the Homoeopathic Physician must study natural disease and artificial drug disease in depth. Disease is a dynamic derangement of the vital force. It is the person who is sick and the expressions of disease differ in individuals. One needs to study the disease in its proper evolution. The anamnesis, the travel from health to sickness and the progress of disease has to be properly recorded, and inter-connections to be studied so that one can achieve cure. One needs to study the man and his environment in totality to understand the sick and sickness in the sick.

Over a period of time, the concept and knowledge about diseases has extended through technological advancement and relentless research by modern medicine. The homoeopathic physician needs to study these advances adequately along with the fundamental principles as listed in Organon. He

needs to study man from a holistic perspective. It is easier to do this in adult than in children, especially the neonates, infant and younger children. They are the real challenge for a Homoeopath. Post graduates in pediatrics are expected to imbibe knowledge, skill and attitude to deal with the pediatric age group. They need to develop a sensitivity to receive and sensibility to interpret the data from different sources and from own observations. This need becomes acute in the pediatrics age group. Apart from these areas, the Syllabus should include inculcating the standard homoeopathic approach and modern clinical advancement both at the basic and applied level.

Part I syllabus will equip the physician to the developmental study of a child from neonates at both physical and psychological level. He also will need to understand the embryological development to understand genetic and congenital problems. He will need to equip himself with clinical skills and knowledge including investigations. Syllabus of Part II will demonstrate the application of these to the study of disease.

PROGRAMME OUTCOMES:

MD (homoeopathy) Pediatrics

1. Recognize the importance of pediatrics in the context of health care needs of the community and its adaptability in the practice of homoeopathy.
2. Practice pediatrics ethically and in step with the principles of primary health care and the philosophy of homoeopathy.
3. Demonstrate sufficient understanding of basic sciences relevant to pediatrics.
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5. Plan and advice measures for the prevention and rehabilitation of children suffering from disease and disability.
6. Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation.
7. Demonstrate empathy and human approach towards children and their family and exhibit interpersonal behaviour in accordance with the social norms and expectations.
8. Play the assigned role in the implementation of national health programmes, effectively and responsibly.
9. Organize and supervise the chosen/ hospital or the field situation.
10. Develop skill as a self-directed learner recognizes continuing educational needs; select and use appropriate learning resources.

11. Demonstrate competence in basic concepts of research methodology and epidemiology with a special reference to qualitative research, and be able to critically analyze relevant published research literature.

12. Develop skills in using educational methods and techniques as applicable to the teaching of homoeopathic students, homoeopathic general practitioners and paramedical health workers.

13. Functions as an effective leader of a health team engaged in health care, research or training.



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PROGRAM SPECIFIC OUTCOMES

Different for part 1 and part 2

Part 1 has advance and research = synopsis

What student should know at research level and advanced subject level

Parts ii paper and dissertation what competencies required

WHAT WE EXPECT FROM PART 1

<u>DOMAINS</u>	
<u>KNOWLEDGE</u>	<p style="text-align: center;"><u>KNOW NORMAL</u></p> <p>Recognize the importance of growth and development as the foundation of Pediatrics and help each child realize her/his optimal potential in this regard</p> <p>Take detailed history, perform full physical examination including neuro-development and behavioral assessment, neonatal examination and gestational assessment, SMR rating for sexual maturation and anthropometric measurements of the child and make clinical diagnosis.</p> <p>Perform relevant investigative procedures and interpret important imaging and laboratory results</p>

	<p>Diagnose illness in children based on the analysis of history, physical examination and investigative work up</p> <p>Demonstrate competence in basic concepts of research methodology and epidemiology;</p> <p><u>SHOULD KNOW NORMAL ALTERATIONS IN NEONATES</u></p> <p>The students should have knowledge of the following tests & the implications of those in the practice for diagnostic and prognostic work-up</p>
<p><u>SKILL</u></p>	<p>The Homoeopathic Physician should be up to date with the skill need to handle the Paediatric age group. These are very different from that of an adult. The following areas have to be emphasized:</p> <p><u>ABLE TO EXAMINE NORMAL. (HT WT MUAC HC CARE OF NEWBORN BF)</u></p> <p><u>SHOULD ABLE TO EXAMINE NORMAL ALTERATIONS</u></p> <p>History taking - History taking from the attendants including current medical history, past history, birth history, mother's obstetric history, nutrition history, vaccination history, family history, psycho-social</p>

	<p>history</p> <p>Physical examination - One hardly gets any symptoms in pediatrics. A pediatrician must be a master of eliciting signs. A keen observation of minutest deviation from normal becomes the key to nail the problem in the paediatric patient. A thorough physical examination including , newborn examination, including gestation assessment, nutritional anthropometry and its assessment, assessment of growth, use of growth chart, SMR rating, developmental evaluation.</p> <p>Bed side procedures – Monitoring skills: recording of vitals, capillary blood sampling, etc.</p> <p>Ward procedures, life-saving procedures - nasogastric feeding, endotracheal intubation, cardiopulmonary resuscitation (pediatric and neonatal), administration of oxygen, administration of fluids, blood, blood components, parenteral nutrition, common dressings, abscess drainage and basic principles of rehabilitation.</p> <p>Interpretation of laboratory and radiological investigations.</p> <p>Recording of height, weight, head circumference and mid arm circumference and interpretation of these</p>
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	<p>parameters using growth reference standard assessment of nutritional status and growth</p> <p>Assessment of pubertal growth</p> <p>Complete development assessment by history and physical examination, and recognizing developmental disabilities, including autism</p> <p>Systematic examination</p> <p>Neonatal examination including gestation assessment</p>
<p><u>ATTITUDE</u></p>	<p>The “Practitioner of the Healing Art” should be well aware of the impact of his/her attitude while providing Health care. Quite often Child care can be very stressful to the parents & the whole household as a whole. Hence it is important that the Physician develops a set of Attitudes that will stand by him in good stead to maintain a balance view. The</p> <p>Overall performance and readiness to work under stress</p> <p>Readiness to understand, learn and adhere to various systems of operations</p> <p>Overall interaction with patients/ relatives, humane approach towards sick person.</p> <p>Readiness to deliver total Patient Care.</p> <p>Towards readings and completing work (work ethics)</p> <p>Capacity to function as a responsible Member of the Team</p> <p>Ability to understand others’ perspective</p>

	<p>Ability to take objective decisions (emotion free)</p> <p>Discipline and self control</p> <p>Openness and flexibility</p> <p>Communication with seniors and consultants</p> <p>Capacity to take up responsibility and discharge it efficiently and dedicatedly.</p> <p>Readiness for Rural/ Community Work - Social aspect of Medicine</p> <p><u>COMMUNICATIONS:</u></p> <p>Includes capacity to communicate written and oral – with colleagues, subordinates, nursing/ admin staff, patients, relatives, superiors, consultants, and law enforcing agencies etc.</p>
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WHAT WE EXPECT FROM PART 2

<u>DOMAINS</u>	<p>In addition to Part I, Part II requires of a homoeopathic paediatrician to undertake a more detailed and in-depth study of each nosological entity in an integrated way.</p> <p>The following schema is suggested as a model to study each clinical condition.</p>
<u>KNOWLEDGE</u>	<p>The Homoeopathic Paediatric PART II student must undertake a more detailed and in-depth study of each nosological entity in an integrated way. The following schema is suggested as a model to study each clinical condition.</p> <p>a. Definition with Hahnemannian classification of disease</p> <p>b. Epidemiological studies</p>

	<p>c. Predisposition:</p> <p>d. Causation and modifying factors:</p> <p>e. Pathogenesis, Pathology, Clinico-pathological and miasmatic correlations with pathological end result</p> <p>f. Classification and evolution of disease according to varying expressions of susceptibility:</p> <p>g. Case taking, examination, investigation and approach to clinical diagnosis:</p> <p>h. Differential diagnosis:</p> <p>i. Management-General and Homoeopathic:</p> <p>i. General Management</p> <p>ii. Standard management: Detailed aspects of currently accepted medication from modern medicine, their pharmacological effects, their management and adverse drug reactions and ways in which they affect the susceptibility of the patient.</p> <p>This may include the following: Introduction to general pharmacology, history, definitions, preparations, courses of drugs, routes of administration, pharmacokinetics, absorption, bio-availability, metabolism, excretion, elimination kinetics, drugs and pregnancy, drugs and newborn, pharmacodynamics, dose response & relationship, modifying dose/effect of drug, development of new drugs.</p> <p>iii. Principles of Homoeopathic management:</p> <ol style="list-style-type: none">1. Scope and limitations:2. Role of different forces:3. Potency and repetition:
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	<p>4. Follow up management:.</p> <p>j. Common repertorial rubrics related to the condition</p> <p>k. Common materia medica remedies</p> <p>l. Prognosis</p> <p>m. Future advances</p> <p>Student should be able to :</p> <p>Identify social, economic, environ-mental, biological and emotional factors affecting a child and adolescent, and formulate diagnostic, therapeutic, curative, rehabilitative, preventive and promotive measures to provide holistic care to children.</p> <p>Understands the impact of ante-natal factors and adverse life events on a child's development, physical health, emotional wellbeing, cognition and behaviour and be able to respond appropriately</p> <p>Able to recognise the potential impact of a parent's physical and mental health or lifestyle on the wellbeing of a child or young person.</p> <p>Plan and provide holistic management for illness in children using principles of homoeopathy which includes:</p> <p>Case Record: Capacity to construct a Problem Definition - 'sizing up the problem'</p> <p>Documentation, Evaluation & Processing</p> <p>Process of Diagnosis & homoeopathic classification of</p>
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	<p>disease</p> <p>Processing Mental state</p> <p>Clinico-pathological co-relations with Susceptibility and Miasm</p> <p>Capacities to formulate Management strategies, including ancillary measures.</p> <p>Capacities to formulate:</p> <p>Therapeutic Approach</p> <p>Methods of remedial selection</p> <p>Posology selection and repetition</p> <p>Follow up criteria and documentation</p> <p>Remedy Response Analysis</p> <p>Ancillary Measures</p> <p>Be in touch with the contemporary advances in the modern paediatrics and have a basic knowledge of contemporary pharmacology to understand its impact and side effects</p> <p>Plan and advice measures for the prevention of childhood disease and disability.</p> <p>Plan rehabilitation of children suffering from chronic illness and handicap, and those with special needs with emphasis on adjuvant therapies like physiotherapy, occupational therapy, speech therapy, psychological remedial measures</p> <p>Orient the parents about the energy and nutritional</p>
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	<p>needs of the child to prevent nutritional deficiencies</p> <p>Manage childhood emergencies efficiently and carry out ward procedures including deliveries, rooming-in, neonatal care, high-risk infants and sick children</p> <p>Facilitate learning of medical/nursing students, practicing physicians, para-medical health workers and other providers as a teacher-trainer`.</p>
<p><u>SKILL</u></p>	<ol style="list-style-type: none"> 1. Demonstrate the skills necessary to perform a complete and accurate pediatric history including prenatal, birth, developmental, dietary, immunization, and psychosocial histories. 2. Demonstrate the skills necessary to perform a complete and accurate pediatric physical exam including but not limited to an age appropriate neurologic exam, and graph and interpret growth chart data. 3. Recording of height, weight, head circumference and mid arm circumference and interpretation of these parameters using growth reference standard assessment of nutritional status and growth 4. Assessment of pubertal growth 5. Complete development assessment by history and physical examination, and recognizing developmental disabilities, including autism 6. Neonatal examination including gestation assessment
<p><u>ATTITUDE</u></p>	<p>The “Practitioner of the Healing Art” should be well</p>

	<p>aware of the impact of his/her attitude while providing Health care. Quite often Child care can be very stressful to the parents & the whole household as a whole. Hence it is important that the Physician develops a set of Attitudes that will stand by him in good stead to maintain a balance view. The</p> <p>Overall performance and readiness to work under stress</p> <p>Readiness to understand, learn and adhere to various systems of operations</p> <p>Overall interaction with patients/ relatives, humane approach towards sick person.</p> <p>Readiness to deliver total Patient Care.</p> <p>Towards readings and completing work (work ethics)</p> <p>Capacity to function as a responsible Member of the Team</p> <p>Ability to understand others' perspective</p> <p>Ability to take objective decisions (emotion free)</p> <p>Discipline and self control</p> <p>Openness and flexibility</p> <p>Communication with seniors and consultants</p> <p>Capacity to take up responsibility and discharge it efficiently and dedicatedly.</p> <p>Readiness for Rural/ Community Work - Social aspect of Medicine</p> <p>Know who to share information with and when,</p>
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	<p>understanding the difference between information sharing on individual, organisational and professional levels.</p> <p>Knows own capabilities and when to seek support from the TEAM and how to become efficient part of the team.</p> <p>Able to recognize the Anxiety/Concerns of Parents & Care takers & its impact on Child's Health & Parents Health Care Seeking Behaviour.</p> <p><u>COMMUNICATIONS:</u></p> <p>Includes capacity to communicate written and oral - with colleagues, subordinates, nursing/ admin staff, patients, relatives, superiors, consultants, and law enforcing agencies etc.</p>
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COURSE OUTCOME AND COURSE SPECIFIC OUTCOME

Following area at general and particular level needs to be studied in order to be a competent Post graduate of Paediatrics

Part I

Sr. no.	COURSE	COURSE OUTCOME
1.	Introduction to the Practice of Evidence based paediatrics	a. Should be able to Concept of evidence based practice in Paediatrics and its importance in Homoeopathy today. b. Importance of developing an ethical base while adhering to the above
2.	Developing a Basic Clinical Approach	a) Correlative study of Normal structure and function in an evolutionary way to reveal Structural and functional integrity of the child in health. This includes physical (structural & functional) & psychological (personality) growth & development of the Infant, Child & Adolescent. b) Normal embryological and development and growth of a child, the range of abnormality and its utility in understanding the child. Learning the fundamentals of intensive care of neonates. c) Embryological Development includes influence of Maternal Health-mental and physical on the Foetus. Considering mother—foetus---neonate as a unit is the key to the treatment of neonates. So approach to the neonate is actually an approach to this unit. d) Role of Control Systems (Psycho-Neuro-Endocrine

		<p>axis and the Reticulo-endothelial System) in the maintenance of Health and initiating the process of breakdown and onset of illness</p> <p>e) Understanding the different components which influence health at individual, family and community level leading to insight into preventive and community Paediatrics through Hahnemannian philosophy of holistic care.</p> <p>f) Understanding the concept of predisposition and disposition and its influence on development of diseases including genetics and congenital.</p> <p>g) Understanding the bio-psycho-social and environmental model of Etiology and correlating with the Hahnemannian concept of causation and evolution of disease in the growing child.</p> <p>h) Development of a Symptom as an indication of loss of functional competence followed by loss of structural integrity – the pathogenesis of symptom formation and the Hahnemannian concept of disease and its expression.</p> <p>i) Clinico-pathological correlations and the concept of a syndrome and its utility in understanding miasmatic evolution.</p> <p>j) Bed side- General and Systematic examination and understanding their basis</p> <p>k) Role of physical examination and clinical investigation in the study of disease and miasm.</p> <p>l) Understanding the process of clinical diagnosis</p> <p>m) Importance of differential diagnosis-probable diagnosis and final diagnosis</p>
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		<p>n) Understanding the process of labour and role of pediatrician in labour room and operation theater during child birth and learning the skill of handling newborn baby and neonates</p> <p>o) Identifying Abnormal Psychological development and Pathology in the developing stages in order to prevent their full-scale development or modify the expression.</p>
	<p>Studying the Cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification in pediatric age group</p>	
3.	IN NEONATES –	<p>At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having</p> <ol style="list-style-type: none"> 1. Alterations in cry – excessive/weak/poor 2. Alterations in activity – hyperactivity/drowsiness 3. Alterations in tone – hypertonia/hypotonia 4. Alterations in colour – cyanosis/pallor/jaundice 5. Alterations in suck – poor sucking 6. Alterations in feeding habits – refusal to feeds 7. Alterations in temperature – hyperthermia/hypothermia 8. Other systemic alterations

4.	IN OLDER CHILDREN- Reticulo-endothelial system	At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having alterations in different temperature: a. Fever – types
5.	Growth and development	At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having alterations in growth and development 1. Short stature 2. Obesity 3. Developmental delay 4. Impaired learning
6.	Nutritional functions	At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having alterations in nutritional functions 1. Underweight 2. Stunting 3. Wasting 4. Failure to thrive

		5. Micronutrient deficiencies
7.	Respiratory system	<p>At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having alteration in Respiratory functions</p> <ol style="list-style-type: none"> 1. Cough 2. Dyspnoea 3. Cyanosis 4. Respiratory distress 5. Hemoptysis
8.	Gastrointestinal system	<p>At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having alteration in Gastrointestinal functions</p> <ol style="list-style-type: none"> 1. Refusal to feeds 2. Vomiting 3. Diarrhea and Constipation 4. Weight loss 5. Gastrointestinal bleeding 6. Jaundice 7. Abdominal pain 8. Abdominal swelling and ascites
9.	Cardiovascular system	<p>At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian</p>

		<p>classification of symptoms and miasmatic classification, take clinical history and examine children having alteration in cardiac and circulatory functions</p> <ol style="list-style-type: none"> 1. Murmur 2. Cyanosis 3. Congestive cardiac failure 4. Shock
10.	Excretory systems	<p>At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having alteration in excretory functions</p> <ol style="list-style-type: none"> 1. Hematuria 2. Dysuria 3. Enuresis and incontinence 4. Voiding dysfunction 5. Renal failure – acute and chronic
11.	Hematological system	<p>At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having Hematological alterations</p> <ol style="list-style-type: none"> 1. Anemia 2. Bleeding 3. Enlargement of Lymph nodes and spleen

12.	Central nervous system	<p>At the end of the course student should be able to explain the cardinal manifestations of disease through their Patho-physiology with Hahnemannian classification of symptoms and miasmatic classification, take clinical history and examine children having alteration in Nervous system functions</p> <ol style="list-style-type: none">1. Convulsions2. Intracranial space occupying lesions3. Large head4. Small head5. Floopy infant6. Coma7. Headache8. Paralysis and palsies
13.	Diagnostic procedures:	<p>At the end of the course students should have knowledge of the following tests & the implications of those in the practice for diagnostic and prognostic work-up:</p> <ol style="list-style-type: none">a) Hematologicalb) Biochemistryc) Serologyd) CSF examinatione) Routine Radiological Examination IVP, Renal scan, Plane radiography of spinef) Barium studiesg) Endoscopy,h) USGi) Other Serological test,

		j) Pleural fluid examination, PFT, Arterial blood gas k) 2 D ECHO, l) CT scan, MRI, m) GFR, 24 hour Protein estimation n) EEG
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PART II-**PAPER I –**

Course outcome: At the end of the course the student should be able to study of each nosological entity in an integrated way in the following schema:

- a. Definition with Hahnemannian classification of disease
- b. Epidemiological studies
- c. Predisposition:
- d. Causation and modifying factors:
- e. Pathogenesis, Pathology, Clinico-pathological and miasmatic correlations with pathological end result
- f. Classification and evolution of disease according to varying expressions of susceptibility:
- g. Case taking, examination, investigation and approach to clinical diagnosis:
- h. Differential diagnosis:
- i. Management-General and Homoeopathic:
 - i. General Management
 - ii. Standard management: Detailed aspects of currently accepted medication from modern medicine, their pharmacological effects, their management and adverse drug reactions and ways in which they affect the susceptibility of the patient.

This may include the following:

Introduction to general pharmacology, history, definitions, preparations, courses of drugs, routes of administration, pharmacokinetics, absorption, bio-availability, metabolism, excretion, elimination kinetics, drugs and pregnancy, drugs and newborn,

pharmacodynamics, dose response & relationship, modifying dose/effect of drug, development of new drugs.

iii. Principles of Homoeopathic management:

1. Scope and limitations:
2. Role of different forces:
3. Potency and repetition:
4. Follow up management:.

j. Common repertorial rubrics related to the condition

k. Common materia medica remedies

l. Prognosis

m. Future advances

Sr. no.	COURSE	COURSE OUTCOME
1.	VITAL STATISTICS:	At the end of the course students should be able to explain the: <ol style="list-style-type: none"> 1. Definition and overview of Paediatrics with special reference to age-related disorders. 2. Epidemiology and vital statistics related to childhood and maternal morbidity and mortality. 3. Definition, causes, present status and measures for attainment of goals.
2.	GROWTH AND DEVELOPMENT: NORMAL AND ABNORMAL	At the end of the course students should be able to: <ol style="list-style-type: none"> 1. Explain normal growth from conception to maturity. Milestones 2. Anthropometry — Perform measurement and interpretation of weight, length/height, head circumference, mid-arm circumference.

		<p>Interpretation of Growth Charts: Road to Health card and percentile growth curves</p> <ol style="list-style-type: none"> 3. Identify abnormal growth patterns-failure to thrive, short stature. 4. Identify Preventable causes and do assessment of developmental retardation.
3.	NUTRITION	<p>At the end of the course students should be able to:</p> <ol style="list-style-type: none"> 1. Know Common food sources protein, carbohydrates, fats, minerals and vitamins 2. Know normal requirements of protein, carbohydrates, fats, minerals and vitamins for newborn, children and pregnant and lactating mother and recommend them. 3. Explain Breast feeding-Definition and benefits. Characteristics and advantages of breast milk. Hazards and demerits of prelacteal feed, top milk and bottle-feeding. Feeding of LBW babies. Infant feeding/weaning foods, method of weaning. 4. Assess nutritional status of a child based on history and physical examination and identify Protein energy malnutrition, obesity and vitamin deficiencies (A, D, K, C, B-Complex).
4.	IMMUNIZATION	<p>At the end of the course students should be able to:</p> <ol style="list-style-type: none"> 1. Explain National Immunization Programme. 2. Explain Principles of Immunization and vaccine preservation and cold-chain.

Paper - II

Sr. no	COURSE	COURSE OUTCOMES
1.	NEONATOLOGY :	<p>At the end of the course students should be able to:</p> <ol style="list-style-type: none"> 1. Define —live birth, neonatal period, classification according to weight and gestation, mortality rates. Birth asphyxia. 2. Explain normal variations and clinical signs in the neonate. 3. Explain causes, diagnosis and principles of management. Neonatal Jaundice and Neonatal infection. 4. Perform care of the normal newborn in the first week of life. 5. Identify sick newborn (i.e. detection of abnormal signs —cyanosis, jaundice, respiratory distress, bleeding, seizures, refusal to feed, abdominal distension, failure to pass meconium and urine)
2.	GENETICS	<p>At the end of the course students should be able to:</p> <ol style="list-style-type: none"> 1. Explain Principles of inheritance and diagnosis of genetic disorders 2. Explain Down's syndrome and other congenital conditions
3.	INFECTIOUS DISEASES	<p>At the end of the course the student should be able to explain each disease entity in an integrated way: Common bacterial, viral and parasitic infections in the</p>

		region, with special reference to vaccinepreventable diseases: Tuberculosis, Poliomyelitis, Diphtheria, Whooping cough, Tetanus including neonatal tetanus, Measles, Mumps, Rubella, Typhoid, Viral Hepatitis, Cholera, Chickenpox, Giardiasis, Amoebiasis, Intestinal helminthiasis, Malaria ETC
4.	HAEMATOLOGY	At the end of the course students should be able to: <ol style="list-style-type: none"> 1. Plan approach to anaemia in childhood with lymphadenopathy and/or hepatosplenomegaly. Thalassemia. 2. Plan approach to a bleeding child, acute lymphoblastic leukaemia, haemophilia, ITP.
5.	RESPIRATORY SYSTEM	At the end of the course the student should be able to explain each disease entity in an integrated way: Acute upper respiratory infections, pneumonia with emphasis on bronchopneumonia, bronchiolitis, bronchitis. Acute and chronic otitis media. Bronchial asthma. Treatment of acute severe asthma. Pulmonary tuberculosis-tuberculous infection versus tuberculous disease, difference between primary and post-primary tuberculosis. Multidrug resistant tuberculosis, Bronchiectasis
6.	GASTRO INTESTINAL TRACT	At the end of the course the student should be able to explain each disease entity in an integrated way: Acute diarrhoeal disease-diarrhoea, complications of diarrhoeal illness. Acute viral hepatitis, causes & diagnosis of Chronic Liver Disease. Common causes of

		constipation.
7.	CENTRAL NERVOUS SYSTEM	At the end of the course the student should be able to explain each disease entity in an integrated way: Acute pyogenic meningitis, encephalitis & Tubercular Meningitis. Seizure Disorder. Febrile convulsions, cerebral palsy.
8.	CARDIOVASCULAR SYSTEM	At the end of the course the student should be able to explain each disease entity in an integrated way: Acute rheumatic fever. Common forms of rheumatic heart disease in childhood. Differentiation between rheumatic and rheumatoid arthritis. Congenital acyanotic and cyanotic heart disease. VSD, PDA, ASD and Fallot's tetralogy (Cyanotic spells). Hypertension in children-recognition and referral. Bacterial endocarditis, pericardial effusion, myocarditis.
9.	GENITOURINARY SYSTEM	At the end of the course the student should be able to explain each disease entity in an integrated way: Acute post-streptococcal glomerulonephritis and nephrotic syndrome. Urinary tract infection-acute and recurrent. Acute renal failure. Obstructive uropathy in children. Renal and bladder stones
10.	ENDOCRINOLOGY	At the end of the course the student should be able to explain each disease entity in an integrated way: Diabetes and hypothyroidism, hyperthyroidism and goitre in children. Delayed and precocious puberty

11.	PAEDIATRIC EMERGENCIES:	<p>At the end of the course the student should be able to explain each disease entity in an integrated way:</p> <p>Critical judgement & referral</p> <p>Status epilepticus</p> <p>Status asthmaticus / Acute severe asthma</p> <p>Shock and anaphylaxis</p> <p>Hypertensive emergencies</p> <p>Gastrointestinal bleed</p> <p>Comatose child</p> <p>Congestive cardiac failure</p> <p>Acute renal failure</p>
12.	FLUID-ELECTROLYTE	<p>At the end of the course the student should be able to explain each disease entity in an integrated way:</p> <p>Principles of fluid and electrolyte therapy in children</p> <p>Pathophysiology of acid-base imbalance and principle of management</p>
13.	BEHAVIOURAL PROBLEMS	<p>At the end of the course the student should be able to explain each disease entity in an integrated way:</p> <p>Breath holding spells, nocturnal enuresis, temper tantrums, pica, Autism, Learning Problems, ADHD, Anxiety disorders.</p>
14.	PEDIATRIC SURGICAL PROBLEMS	<p>At the end of the course the student should be able to explain each disease entity in an integrated way:</p> <p>Diagnosis and advise for surgery of Cleft lip/palate, hypospadias, undescended testis, tracheoesophageal fistula, hydrocephalus, CTEV, Umbilical and inguinal hernia, anorectal malformations, hypertrophic pyloric</p>

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DR. M. L. DHAWALE MEMORIAL
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