# Curriculum for MD/ MS Ayurveda
# (PRESCRIBED BY NCISM)

अभ्यासात्प्राप्यते दृष्टिः कर्मसिद्धिप्रकाशिनी।

## Semester II
## Applied Basics of Kaumarabhritya
## (Pediatrics)
## (SUBJECT CODE : AYPG-AB-KB)

**(Applicable from 2024-25 batch, from the academic year 2024-25 onwards until further notification by NCISM)**

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**BOARD OF AYURVEDA**
**NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE**
**NEW DELHI-110026**

# PREFACE

Kaumarabhritya, the specialized branch of Ayurveda dedicated to pediatric care, holds a unique and vital role in promoting health from conception through adolescence. Grounded in the holistic vision of Ayurveda, it addresses not only the treatment of childhood diseases but also the comprehensive nurturing of a child's physical, mental, and spiritual well-being. The postgraduate program in Kaumarabhritya is designed to impart in-depth theoretical knowledge alongside rigorous clinical training. It equips future practitioners with the ability to manage neonatal to adolescent health issues through Ayurvedic principles while sensitively integrating insights from modern pediatrics.

This curriculum adopts an innovative and progressive learning framework that moves beyond traditional didactic methods. It emphasizes clinical immersion, critical thinking, and real-world application from the early semesters. Learners are trained in detailed history-taking, examination of neonates and children, developmental assessments, and Dosha-based diagnosis. Emphasis is placed on understanding Garbhini Paricharya, Sutika Paricharya, and Balopachara with contextual relevance. Through simulation-based learning, case discussions, interdisciplinary sessions, and exposure to fieldwork, the learning process becomes dynamic and experiential, preparing scholars for complex pediatric care with confidence and clarity.

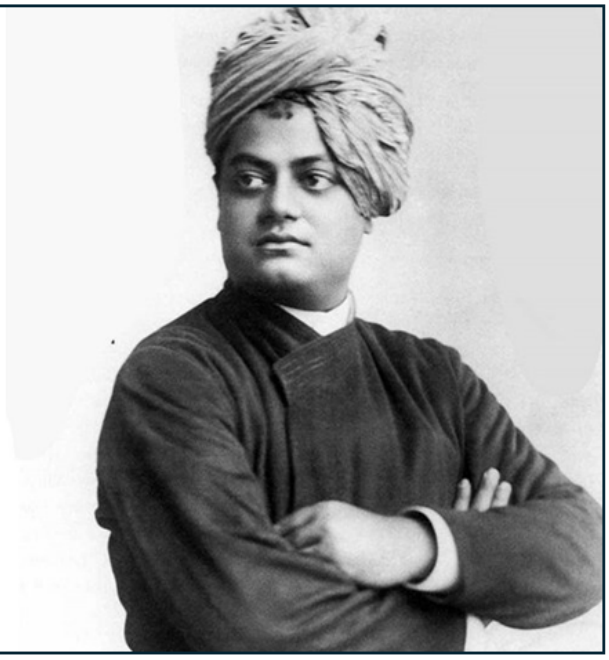
This revised syllabus is a result of collaborative academic insight and practical vision. It encourages young scholars to not only uphold Ayurvedic principles but also develop empathy, ethical understanding, and communication skills essential for working with children and families. It is expected that postgraduates will evolve into proficient Ayurvedic pediatricians, capable of clinical excellence, research contribution, and community service. This curriculum aspires to empower students with the tools to innovate, lead, and advocate for child health through Ayurveda in both national and global contexts.

# INDEX



We want that education by which **character** is formed, **strength of mind** is increased, the **intellect** is expanded, and by which one can **stand on one's own feet.**

*-Swami Vivekananda*



# NCISM

**(NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE)**

# Curriculum for MD/ MS Ayurveda

**Applied Basics of Kaumarabhritya** (AYPG-AB-KB)

# Summary & Credit Framework

# Semester II

| Module Number & Name | Credits | Notional Learning Hours | Maximum Marks of assessment of modules (Formative assessment) |
|---|---|---|---|
| M1. Clinical Pediatrics | 2 | 60 | 50 |
| M2. Navajata Shishu Pareeksha Evam Paricharya (Examination and Care of newborn) | 3 | 90 | 75 |
| M3. Bala Samvardhana evam Mano Vigyana - Child Growth, Development and Psychology | 2 | 60 | 50 |
| M4. Shishu evam Bala poshana and Vyadhi Kshamatwa (Child nutrition and Immunity) | 3 | 90 | 75 |
| M5. Bala Panchakarma-I | 2 | 60 | 50 |
| M6. Bala Panchakarma-II | 2 | 60 | 50 |
| M7. Child Health Programmes, Regulatory Laws and ethics of Genetics | 2 | 60 | 50 |
| | **16** | **480** | **400** |

**Credit frame work**

AYPG-AB-KB consists of 7 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

**Important Note:** The User Manual MD/MS Ayurveda is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic. In case of difficulty and questions regarding the curriculum, write to syllabus24ayu@ncismindia.org.

**Course Code and Name of Course**

| Course code | Name of Course |
|---|---|
| AYPG-AB-KB | Applied Basics of Kaumarabhritya |

**Table 1 : Course learning outcomes and mapped Program learning outcomes**

| CO No | A1<br>Course learning Outcomes (CO) AYPG-AB-KB<br>At the end of the course AYPG-AB-KB, the students should be able to- | B1<br>Course learning Outcomes mapped with program learning outcomes. |
|---|---|---|
| CO1 | Demonstrate understanding and appreciation of the concept of Samvardhana (optimum growth and development) and its application in individual and community pediatric healthcare as a foundation for child health care. | PO1,PO2,PO3,PO4,PO7 |
| CO2 | Identify, categorize, and apply appropriate intervention strategies in pediatric and neonatal care based on urgency—distinguishing between emergency and non-emergency conditions. | PO1,PO2,PO4,PO6 |
| CO3 | Plan long-term care strategies and manage neonates and children requiring sustained medical support. | PO1,PO2,PO3,PO4 |
| CO4 | Demonstrate proficiency in Bala Panchakarma practices, ensuring safe and effective treatment while maintaining a focus on pediatric healthcare protocols. | PO1,PO2,PO3,PO4,PO7 |
| CO5 | Demonstrate skill in documentation and maintenance of case records, referrals, mortality, medico legal cases and notifiable diseases. | PO1,PO2,PO4,PO6,PO7 |
| CO6 | Demonstrate adherence to the principles of Sadvritta (ethical conduct) and Karunya (compassion) through effective and culturally sensitive communication with Rugna (patients), Abhibhavaka (parents), and Paricharaka (guardians). | PO4,PO6,PO8 |
| CO7 | Demonstrate skills in creating inclusive and adaptive work environment to ensure optimal patient outcomes and system-based practice. | PO4,PO6,PO7 |
| CO8 | Appraise global trends and current research in Kaumarabhritya to generate new insights and apply them in clinical practice using evidence-based approaches. | PO2,PO3,PO5,PO7,PO8 |

**Table 2 : Course contents (Modules- Credits and Notional Learning Hours)**

| 2A Module Number | 2B Module & units | 2C Number of Credits | Notional Learning hours | | | |
|---|---|---|---|---|---|---|
| | | | 2D Lectures | 2E Practical Training | 2F Experiential Learning including modular assessment | 2G Total |
| 1 | **M-1 Clinical Pediatrics**<br>This module focuses on the examination and interpretation of investigations in clinical pediatrics, emphasizing comprehensive Pareekshana (Examination) to reach Vyadhi Vinishchaya (diagnosis) for accurate clinical decision-making.<br><br>• **M1U1 Shishu evam Bala Pareekshana (Examination of healthy and sick Child)**<br>◦ Prashasta Bala Lakshanas<br>◦ Ayushmana Kumara Lakshana<br>◦ Anguli Pramana Parikshana<br>◦ Vedana and lakshana jnana<br><br>• **M1U2 Srotas Parikshana (Systemic Examination) - I**<br>◦ History Taking and General examination<br>◦ Examination of Respiratory and cardiovascular system<br>◦ Pranavaha Srotas and Rasavaha Srotas Dushti lakshanas<br><br>• **M1U3 Srotas Parikshana (Systemic Examination) - II**<br>◦ Examination of Gastro-Intestinal System<br>◦ Evaluation of Sroto dushti Lakshanas for Annavaha and Pureeshavaha | 2 | 10 | 20 | 30 | 60 |

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|---|---|---|---|---|---|---|
| | Srotas.<br>◦ Examination of Central Nervous System<br>◦ Evaluation of Sroto Dushti lakshanas for Vatavaha Srotas<br><br>• **M1U4 Srotas Parikshana (Systemic Examination) -III**<br><br>◦ Examination of Genito-Urinary System<br>◦ Evaluation of Sroto dushti Lakshanas for Mutravaha Srotas<br>◦ Examination of Musculo-skeletal System<br>◦ Evaluation of Sroto dushti Lakshanas for Mamsavaha and Asthi-majja Srotas<br><br>• **M1U5 Clinical Application of Tridosha Siddhant in Pediatric Clinical Practice**<br><br>◦ Integrated Analysis of Tridosha , Dhatu and Mala in health, disease and Clinical Practice<br><br>• **M1U6 Essential Investigations**<br><br>◦ Prayogshaliya Parikshana -Essential Diagnostic procedures useful in children:<br>◦ Astha Sthan Pariksha<br>◦ Stanya Pariksha<br>◦ Rakta Parikshana - Blood investigations<br>◦ Mala evam Mootra Parikshana - Urine and Stool investigations<br>◦ Kshakirana Parikshana - Radiological investigations<br>◦ ECG, EEG, 2D – Echo, colour doppler , USG, CT-Scan, MRI, PFT<br>◦ Lumbar puncture<br>◦ Bone marrow aspiration | | | | | |

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|---|---|---|---|---|---|---|
| 2 | **M-2 Navajata Shishu Pareeksha Evam Paricharya (Examination and Care of newborn)**<br>This module equips learners with the skills to receive and assess a newborn, evaluate neonatal health, identify potential pathologies, and implement interventions to support the development and well-being of both normal and high-risk neonates.<br><br>• **M2U1 Navajata Shishu Pariksha (Examination of Newborn)**<br><br>◦ Examination at Birth<br>◦ Examination of Newborn Reflexes<br>◦ Daily Neonatal Assessment<br>◦ Gestational Age assessment<br>◦ Examination for adequacy of feeding<br>◦ Evaluation of minor and major congenital abnormalities<br>◦ Monitoring Vitals and Anthropometric Measurements<br>◦ Examination at Discharge<br><br>• **M2U2 Preparation for receiving the newborn**<br><br>◦ Prerequisites (History of gestation, knowledge of procedure, availability of necessary instruments/equipments)<br>◦ Preparation (Assembling instruments, medications and preparing Newborn care room/area, team-briefing)<br>◦ Aseptic measures ( Hand hygiene, sterilizing instruments/equipments, wearing PPE, adapting asepsis)<br>◦ Precautions( Monitoring, avoiding cross-contamination, engaging the skilled team)<br><br>• **M2U3 Navajata Shishu Paricharya (Neonatal Care)-I**<br><br>◦ Routine Care | 3 | 15 | 30 | 45 | 90 |

- Initial Steps of Resuscitation
- Observational Care
- Temperature regulation and KMC

• **M2U4 Navajata Shishu Paricharya (Neonatal Care)- II**

- Naabhinaal kartana,
- Mukhshodhana,
- Garbhodaka vamana,
- Ulba Parimarjana,
- Snanakarma,
- Jatakarma samskara,
- Shishushayya,
- Dhoopana,
- Suryadarshana/Chandradarshana,
- Surya Rashmi Chikitsa,

• **M2U5 Care of High-Risk Neonates**

- Preterm
- Post term
- Twins
- Low Birth Weight (VLBW,ELBW)
- High-Risk Neonates,
- Growth monitoring and red flags

• **M2U6 Breast feeding**

- Importance and Advantages
- Composition
- Immunogenicity and Brain growth
- Contraindications (Absolute and relative)

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| | ◦ Techniques of Breast feeding<br>◦ Mechanical, hormonal , psychological and emotional difficulties during breast feeding. | | | | | |
| 3 | **M-3 Bala Samvardhana evam Mano Vigyana - Child Growth, Development and Psychology**<br>Explores the biological, psychological, and social aspects of 'Samvardhana' (child growth and development), focusing on key stages from infancy to adolescence. Emphasizes evidence-based approaches to assess milestones, address behavioral issues, and promote holistic well-being.<br><br>• **M3U1 Samvardhana (Physiology of Growth & Development)**<br><br>◦ Growth and Development (Domains and Milestones)<br>◦ Growth Spurts<br>◦ Anatomical & physiological Variations (Child vs Adult)<br>◦ Anthropometry and Objective Parameters – Weight, Height, Mid arm circumference, Head circumference, Chest circumference, Growth velocity, BMI, Crown-heel length, Upper and Lower Segment Ratio, Skin fold thickness, Bone Age<br><br>• **M3U2 Assessment of Growth & Development- Part I**<br><br>◦ Fenton growth chart<br>◦ Growth charts - IAP & WHO<br>◦ Denver, Trivandrum and Baroda developmental screening Tools<br>◦ Bayley scales for infant and Toddler<br>◦ Dental Age and development<br><br>• **M3U3 Assessment of Growth & Development- Part II** | 2 | 10 | 20 | 30 | 60 |

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| | ◦ Precocious puberty & delayed puberty<br>◦ Hearing and Vision Screening<br>◦ Developmental delay, Speech delay<br>◦ Developmental and Behavioural Screening<br><br>• **M3U4 Clinical and Scientific Relevance of Samskara - I**<br><br>◦ Jatakarma samskara<br>◦ Namakaran samskara<br>◦ Nishkramana samskara<br>◦ Annaprashana samskara<br>◦ Chudakarma samskara<br><br>• **M3U5 Clinical and Scientific Relevance of Samskara – II**<br><br>◦ Karnavedhana Samskara<br>◦ Aksharlekhana Samskara<br>◦ Upanayana Samskara<br>◦ Vedarambha Samskara<br>◦ Samavartana Samskara<br>◦ Other Samskaras - Chandra Darshana, Surya Darshana, Dolashayan, Phala Prashana<br><br>• **M3U6 Bala Mano Vigyana (Child Psychology)**<br><br>◦ Psychological Health and development<br>◦ Psychological theories<br>◦ Deviation<br>◦ Scales and Tools<br>◦ Satwavajaya chikitsa, methods of counseling | | | | | |

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| 4 | **M-4 Shishu evam Bala poshana and Vyadhi Kshamatwa (Child nutrition and Immunity)**<br>Focuses on essential nutrients for optimal growth, development, and immune resilience in children, emphasizing dietary guidelines, immunity enhancement, and preventive care for health and vitality.<br><br>• **M4U1 Shishu Poshana**<br><br>◦ Stana and Stanya Vijnan<br>◦ Matru- Dhatri -dugdha<br>◦ Lehana<br>◦ Feeding (Preterm, Low birth weight, Extremely low birthweight, Sick neonates)<br>◦ Alternative feeding<br>◦ Daily fluid, caloric requirement<br>◦ Feed fortification<br>◦ Breast Milk Banking<br>◦ Stanyashodhana and Stanyajajana yoga<br>◦ Stanyapanayana- Weaning / Complementary feeding<br><br>• **M4U2 Bala Poshana**<br><br>◦ Pathyahara for infants and children.<br>◦ Feeding guidelines and Practices, Resources<br>◦ Vaya anusara Poshana-Nutritional requirements<br>◦ Nutritional Assessment<br>◦ Counselling of parents and community.<br><br>• **M4U3 Vyadhikshamatva (Immunity) - I**<br><br>◦ Vyadhikshamatva | 3 | 15 | 30 | 45 | 90 |

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| | ◦ Classification<br>◦ Immune response<br>◦ Types of Immunity<br>◦ Immuno-deficiency Diseases<br>◦ Immunopharmacology<br><br>• **M4U4 Vyadhikshamatva Vardhanopaya (Immune enhancing methods)**<br><br>◦ Immune enhancing methods – Bala Rasayana,<br>◦ Medhya Rasayana,<br>◦ Poorva Abhisamskara,<br>◦ Swarna Prashana<br>◦ Prakaradi Yogas<br>◦ Single drugs<br>◦ Non dietic methods<br><br>• **M4U5 Vaccination**<br><br>◦ Schedule<br>◦ IMI-Intensive Mission Indra dhanush<br>◦ Type of Vaccines<br>◦ Route of administration, dose, contraindications and adverse effects<br>◦ Immunoglobulins, Anti-sera<br>◦ Vaccine storage and Transport<br>◦ Vaccine vial Monitor<br>◦ AEFI reporting | | | | | |
| 5 | **M-5 Bala Panchakarma-I**<br>This module focuses on integrating Bala Panchakarma into pediatric care, emphasizing its scientific principles, therapeutic efficacy, and adaptations for children. | 2 | 10 | 20 | 30 | 60 |

It covers necessary procedures, instruments, and equipment, equipping practitioners with the skills to implement Bala Panchakarma effectively and compassionately.

- **M5U1 Bala Panchakarma Unit-Principles and Practices.**
    - Establishment of Balpanchakarma unit
    - General Therapeutic principles
    - Dietary principles
    - Shadupakrama (Snehana, Rukshana, Swedana, Stambhana, Langhana,Brihmana)
    - Dhupana Karma (Fumigation procedures)
- **M5U2 Snehana and Rukshana Karma**
    - Classification of Snehana
    - Bahya Sneha- Types, Methods, Indications, Contraindications, Utility and relevant modification in children
    - Preparation of therapy room, medicine, Rogi, Paricharak and Bhishak
    - Selection of medication (Abhyanga, Kaya Seka (Pizichhil), Utsadana, Taila)
    - Abhyantara Sneha- Types, Methods, Indications, Contraindications, Matra, Utility and relevant modification in procedure as per child. ( Achchha pana, Pravicharana, Snehavyapada and Chikitsa)
    - Rukshana karma:  Types, Methods, Indications, Contraindications, Utility and relevant modification in children
    - Selection of medication (Udwartana, Utsadana, Udgharshana)
- **M5U3 Swedana Karma**
    - Classification of Swedana
    - Preparation of therapy room, medicine, Rogi, Paricharak and Bhishak
    - Methods, Indications, contraindications, Utility and modification of

Ashtasweda (Hastasweda, Nadi, Pradeha, Prastara Sankara, Upanaha Parisheka, Awagaha) in children.
    - Awasthika Sweda: (Hastasweda, Pattasweda, Anguli sweda : Methods, Indications, Contraindications, Application and relevant modification in children)
    - Selection of medication: Pinda Sweda: Methods, Indications, Contraindications, Utility and modification in children of Patra Pinda Sweda, Shashtika Shali Pinda Sweda, Valuka Sweda, Churna Pottali Sweda.
    - Swedan vyapada and chikitsa

- **M5U4 Vamana and Virechana Karma**

Vaman Karma

    - Classification
    - Method and Application
    - Indications and contraindications
    - Relevant Modifications in children
    - Preparation of therapy room, medicine, Rogi, Paricharak and Bhishak
    - Selection of Vamana and Vamanopaga Dravya
    - Mode of action
    - Samyaka Siddhi Lakshana
    - Vamana Vyapada and chikitsa
    - Sansarjana Krama
    - other Poorva and Pashchat karma

Virechana Karma

    - Classification
    - Method and Application
    - Indications and contraindications
    - Relevant Modifications in children

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| | ◦ Preparation of therapy room, medicine, Rogi, Paricharak and Bhishak<br>◦ Selection of Virechana and Virechanopag Dravya<br>◦ Mode of action<br>◦ Samyaka Siddhi Lakshana<br>◦ Virechana Vyapada and chikitsa<br>◦ Sansarjana krama<br>◦ Other Poorva and Pashchat Karma<br><br>• **M5U5 Basti Karma**<br><br>◦ Classification<br>◦ Materials (Age-appropriate instruments and equipment's and materials)<br>◦ Method and Application<br>◦ Indications and contraindications<br>◦ Relevant Modifications in children<br>◦ Preparation of therapy room, medicine, Rogi, Paricharaka and Bhishaka<br>◦ Selection of type of Basti and basti Dravya<br>◦ Mode of action<br>◦ Samyaka Siddhi Lakshana<br>◦ Basti Vyapada and chikitsa<br>◦ Pariharkala<br>◦ other Poorva and pashchat karma<br>◦ Anuvasana Basti/Matra Basti<br>◦ Niruha Basti- Types,<br>◦ Kheer basti/ Stanya Basti<br>◦ Chaturbhadra kalpa Basti | | | | | |
| 6 | **M-6 Bala Panchakarma-II** | 2 | 10 | 20 | 30 | 60 |

This module aims to equip practitioners with the knowledge of modifications and adaptations of Panchakarma procedures for children, as well as the instruments and equipment used in Bala Panchakarma. It also focuses on developing the skills needed to implement Bala Panchakarma effectively, ensuring a compassionate approach to children's health and well-being.

- **M6U1 Nasya Karma**
    - Types and classification
    - Method (Poorva, Pradhan and Pashchat Karma) and Application
    - Indications and contraindications
    - Relevant Modifications in children
    - Selection of Nasya Dravya
    - Mode of action
    - Samyaka Lakshana
    - Nasya Vyapada and Chikitsa
    - Other Poorva and Pashchat karma
- **M6U2 Dhara , Bahya Basti and Lepa**

    Dhara: Ekanga dhara/Sarvanga Dhara/Shirodhara

    - Method (Poorva, Pradhan and Pashchat Karma) and Application
    - Indications and contraindications
    - Relevant Modifications in children
    - Selection of Dhara Dravya
    - Mode of action
    - Samyaka Lakshana
    - Dhara Vyapada and Chikitsa

    Bahya Basti: Shirobasti/ Urobasti/ Nabhi basti/Kati Basti/Prishta basti/ Janu Basti/ Hridbasti

- Method (Poorva, Pradhan and Pashchat Karma) and Application
- Indications and contraindications
- Relevant Modifications in children
- Selection of Basti Dravya
- Mode of action
- Samyaka Lakshana
- Basti Vyapada and Chikitsa

Lepa: Types- Pralepa, Pradeha, Aalepa

- Method(Poorva, Pradhan and Pashchat Karma) and Application
- Indications and contraindications
- Relevant Modifications in children
- Selection of Lepa Dravya
- Mode of action
- Samyaka Lakshana
- Lepa Vyapada and Chikitsa

• **M6U3 Kriya Kalpa and Miscellaneous Procedures**

- Kriya Kalpa–Seka, putapaka, Achyotana, Anjana, Pindi, Bidalaka, Akshitarpana– Indications, contraindications, selection of Dravya and its dosages, Application, relevant modifications, mode of action, Complications and their management.
- Miscellaneous procedures –Pichu, Thalam, Gandoosha, Kavala, Karnapoorana - Indications, contraindications, selection of Dravya and its dosages, Application, relevant modifications, mode of action, Complications and their management.

• **M6U4 Panchakarma in special cases of differently abled children and Anushastra Procedures**

| | | | | | | |
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| | ◦ Selection of Panchakarma procedures as per need in Cerebral Palsy, Autism Spectrum Disorders, Down Syndrome, Neuromuscular Disorders, Developmental Delays, ADHD, Twak Vikara, Pranavaha strotovikara<br>◦ Relevant modification in equipment's/ Instruments and procedures.<br>◦ Anushastra procedures - Raktamokshana, Agnikarma, Ksharakarma, Bandaging-Indications, contraindications, Application, relevant modifications, mode of action, Complications and their management. | | | | | |
| 7 | **M-7 Child Health Programmes, Regulatory Laws and ethics of Genetics**<br>This module focuses on understanding National childhealth iniatives, regulatory frameworks, governing pediatric care and ethical consideration in genetics.<br><br>• **M7U1 National Health & Nutritional Programs related to children**<br><br>◦ Janani shishu karyakram<br>◦ Rashtriya Bal Swasthya Karyakram<br>◦ Integrated Child Development scheme<br>◦ National health Programs related to control of communicable and non-communicable diseases.<br>◦ Mid-day meal program<br>◦ School health program<br>◦ National health Mission<br><br>• **M7U2 Regulatory Laws and Acts**<br><br>Regulatory laws related to neonatal, infantile and paediatrics clinical practice.<br>Laws on infant feeding and children's foods | 2 | 10 | 20 | 30 | 60 |

- **M7U3 Challenges and Opportunities in Kaumarabhritya**

  Challenges and future opportunities in child health care.
  Role and responsibilities of a Kaumarabhritya specialist in health and wellness

- **M7U4 Genetic Risk Assessment and ethics**

  - Pedigree Analysis
  - Genetic Risk Assessment
  - Linkage analysis
  - Genetic imprinting
  - Genetic counselling,
  - Genetic ethics

- **M7U5 Epigenetics and its role in prevention of genetic disorder**

  - Epigenetics in Ayurveda -Paternal and maternal genetic potential
  - Environmental factors and genetic health (Hazards, radiation, pollution, addictions, life style medications)
  - Periconceptional, post conceptional factors
  - Tridosha - Triguna and genetic health (Stress, disorders, Prakruthi)

- **M7U6 Gene Sampling, Gene and Stem cell Therapy**

  - Genetic sampling and interpretation of genetic reports
  - Hardy- Weinberg equilibrium
  - Mary Lyon hypothesis
  - Gene therapy
  - Stem cell therapy

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|---|---|---|---|---|---|---|
| | | | | | | |
| | | **16** | **80** | **160** | **240** | **480** |

**Table 3 : Modules - Unit - Module Learning Objectives and Session Learning Objective- Notional Learning Hours- Domain-Level- TL Methods**

| 3A Course Outcome | 3B Learning Objective (At the end of the (lecture/practical training /experiential learning) session, the students should be able to) | 3C Notional learning Hours | 3D Lecture/ Practical Training/ Experiential Learning | 3E Domain/ Sub Domain | 3F Level (Does/Shows how/Knows how/Know) | 3G Teaching Learning Methods |
|---|---|---|---|---|---|---|
| **Module 1** : Clinical Pediatrics | | | | | | |
| **Module Learning Objectives**<br>**(At the end of the module, the students should be able to)**<br><br>1. Demonstrate skills in pediatric history-taking and general/systemic examination.<br>2. Evaluate and interpret clinical presentations and relevant diagnostic investigations.<br>3. Exhibit ethics and professionalism in communication with patients and guardians. | | | | | | |
| **Unit 1 Shishu evam Bala Pareekshana (Examination of healthy and sick Child)**<br><br>◦ Prashasta Bala Lakshanas<br>◦ Ayushmana Kumara Lakshana<br>◦ Anguli Pramana Parikshana<br>◦ Vedana and lakshana jnana<br><br>**References:** 38,40,43,46 | | | | | | |
| **3A** | **3B** | **3C** | **3D** | **3E** | **3F** | **3G** |
| CO1,CO2 | Differentiate 'Swastha' and 'Aswastha' Bala based on the principles of Prashasta Bala Lakshana, Ayushmana Kumara Lakshana, and Anguli Pramana Parikshana. | 1 | Lecture | CAN | Knows-how | L&PPT ,L_VC |
| CO1,CO2 | Analyze Vedana Jnana and Lakshana Jnana for the early identification and evaluation of | 1 | Lecture | CAN | Knows- | L&PPT |

| | | | | | | |
|---|---|---|---|---|---|---|
| | illnesses in children. | | | | how | ,L_VC |
| CO1,CO6 | Demonstrate Anguli Pramana Parikshana to assess physical and developmental parameters of 'Samvardhana' (healthy growth and development). | 2 | Practical Training 1.1 | PSY-GUD | Shows-how | CBL,D |
| CO2,CO5,CO6 | Examine sick children using Vedana Jnana and Lakshana Jnana. | 2 | Experiential-Learning 1.1 | PSY-MEC | Does | PrBL,RLE,W |

**Unit 2 Srotas Parikshana (Systemic Examination) - I**

- History Taking and General examination
- Examination of Respiratory and cardiovascular system
- Pranavaha Srotas and Rasavaha Srotas Dushti lakshanas

**References:** 1,3,7,29,40,44,76,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO2,CO8 | Analyze the Dushti Lakshana of Pranavaha and Rasavaha Srotas. | 2 | Lecture | CAN | Knows-how | FC,L&GD,L&PPT |
| CO1,CO5,CO6 | Demonstrate history-taking and examination skills to distinguish between healthy and sick children. | 2 | Practical Training 1.2 | PSY-GUD | Shows-how | CBL,D-BED,SIM |
| CO1,CO2,CO5,CO6 | Conduct history-taking and general examination to differentiate between healthy and sick child. | 3 | Experiential-Learning 1.2 | PSY-MEC | Does | CBL,RLE,RP |
| CO2,CO3,CO6 | Demonstrate examination of Pranavaha Srotas (Respiratory System) and analyze the findings. | 2 | Practical Training 1.3 | PSY-GUD | Shows-how | CBL,D,D-BED |

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| CO2,CO5,CO6 | Examine Pranavaha Srotas (Respiratory System) and analyse findings. | 2 | Experiential-Learning 1.3 | PSY-MEC | Does | CBL,D-BED,SDL |
| CO2,CO5,CO6,CO7 | Examine the cardiovascular system and analyze findings. | 2 | Experiential-Learning 1.4 | PSY-MEC | Does | CBL,PL,SDL |

**Unit 3 Srotas Parikshana (Systemic Examination) - II**

- Examination of Gastro-Intestinal System
- Evaluation of Sroto dushti Lakshanas for Annavaha and Pureeshavaha Srotas.
- Examination of Central Nervous System
- Evaluation of  Sroto Dushti lakshanas for Vatavaha Srotas

**References:** 1,3,5,7,29,40,44,46,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO2,CO8 | Analyze the Dushti Lakshana of Annavaha, Pureeshavaha and Vatavaha Srotas. | 2 | Lecture | CAN | Knows-how | FC,L&GD,L_VC |
| CO2,CO5,CO6 | Demonstrate examination of Annavaha-Pureeshavaha Srotas (Gastro-intestinal System) and analyze the findings. | 2 | Practical Training 1.4 | PSY-GUD | Shows-how | CBL,D,ML |
| CO2,CO5,CO6,CO7 | Examine the Annavaha-Pureeshavaha Srotas (Gastro-intestinal System) and analyze findings. | 3 | Experiential-Learning 1.5 | PSY-MEC | Shows-how | CBL,RP,SDL |

**Unit 4 Srotas Parikshana (Systemic Examination) -III**

- Examination of Genito-Urinary System
- Evaluation of Sroto dushti Lakshanas for Mutravaha Srotas
- Examination of Musculo-skeletal System
- Evaluation of Sroto dushti Lakshanas for Mamsavaha and Asthi-majja Srotas

**References:** 1,3,5,7,29,40,43,44,49,76,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO2,CO8 | Analyze the Dushti Lakshana of Mutravaha Srotas, Mamsavaha and Asthi-majja vaha Srotas | 2 | Lecture | CAN | Knows-how | FC,L,L&GD |
| CO2,CO5,CO6 | Demonstrate examination of Mamsavaha-Asthivaha Srotas (Musculoskeletal system) and analyse the findings. | 2 | Practical Training 1.5 | PSY-GUD | Shows-how | D,D-BED,ML,SIM |
| CO1,CO2,CO5,CO6 | Examine the Mutravaha-Shukravaha Srotas (Genitourinary System), and analyse the findings. | 2 | Experiential-Learning 1.6 | PSY-GUD | Does | CBL,PL,SIM |
| CO2,CO5,CO6 | Examine the Mamsavaha -Asthivaha Srotas (Musculo-Skeletal System) and analyze findings. | 2 | Experiential-Learning 1.7 | PSY-MEC | Does | CBL,PL,SDL |
| CO2,CO5,CO6 | Demonstrate examination of the Mutravaha-Shukravaha Srotas (Genitourinary System) and analyze findings. | 1 | Practical Training 1.6 | PSY-GUD | Shows-how | D,D-BED,SIM |
| CO2,CO5,CO6 | Examine the Vata-Nadi vaha Srotas (Central Nervous System) and analyze findings. | 3 | Experiential-Learning 1.8 | PSY-MEC | Does | CBL,PL,RP,SDL |
| CO2,CO5,CO6 | Demonstrate examination of the Nadi Samsthana /Vata-Nadi vaha Srotas (Central Nervous System) and analyze findings. | 2 | Practical Training 1.7 | PSY-MEC | Shows-how | CBL,D-BED |

**Unit 5 Clinical Application of Tridosha Siddhant in Pediatric Clinical Practice**

- Integrated Analysis of Tridosha , Dhatu and Mala in health, disease and Clinical Practice

**References:** 3,17,43,46,76,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO2,CO8 | Analyze the application of Tridosha Siddhant in clinical practice. | 1 | Lecture | CAN | Knows-how | FC,L&GD,PBL |
| CO2,CO5,CO6,CO8 | Demonstrate clinical examination based on Tridosha Siddhant and interpret the findings. | 2 | Practical Training 1.8 | PSY-GUD | Shows-how | CBL,D,ML |
| CO2,CO5,CO6,CO8 | Perform examination based on Tridosha Siddhant and interpret findings. | 2 | Experiential-Learning 1.9 | PSY-MEC | Does | CBL,W |

**Unit 6 Essential Investigations**

- Prayogshaliya Parikshana -Essential Diagnostic procedures useful in children:
- Astha Sthan Pariksha
- Stanya Pariksha
- Rakta Parikshana - Blood investigations
- Mala evam Mootra Parikshana - Urine and Stool investigations
- Kshakirana Parikshana - Radiological investigations
- ECG, EEG, 2D – Echo, colour doppler , USG, CT-Scan, MRI, PFT
- Lumbar puncture
- Bone marrow aspiration

**References:** 1,3,5,35,40,44,45,49,76

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
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| CO5,CO6 | Analyse the ethical implications of investigative procedures (Invasive and non-invasive). | 1 | Lecture | CAN | Knows-how | L&GD,L&PPT,PBL |
| CO2,CO5,CO6 | Demonstrate proficiency in advising appropriate routine lab investigations (blood, urine, and stool) and interpret the findings. | 2 | Practical Training 1.9 | PSY-GUD | Shows-how | D,LRI,PBL |
| CO2,CO5,CO6,CO8 | Advise and interpret diagnostic tests, including ECG, EEG, Echo, Color Doppler, USG, CT Scan, MRI, PFT, Lumbar Puncture, and Bone Marrow Aspiration. | 2 | Experiential-Learning 1.10 | PSY-MEC | Does | CBL,LRI,Mnt |
| CO2,CO3,CO6 | Demonstrate 'Ashta Sthana Pariksha' and analyze findings. | 1 | Practical Training 1.10 | PSY-GUD | Shows-how | D-BED,PL,SIM |
| CO2,CO3,CO5,CO6 | Demonstrate Stanya Pariksha and interpret findings. | 1 | Practical Training 1.11 | PSY-GUD | Shows-how | D,PL,PT |
| CO2,CO3,CO4,CO5,CO7 | Demonstrate procedure of Lumbar puncture and analyze the findings. | 1 | Practical Training 1.12 | PSY-GUD | Shows-how | CBL,D,D-M |
| CO2,CO5,CO6 | Perform Ashta Sthan Pariksha and evaluate the findings. | 1 | Experiential-Learning 1.11 | PSY-GUD | Does | CBL,SDL |
| CO2,CO5,CO6 | Perform 'Stanya-Pariksha' and interpret results. | 2 | Experiential-Learning 1.12 | PSY-MEC | Shows-how | CBL,D,PL,SDL |

**Practical Training Activity**

| Practical No | Name | Activity details |
|---|---|---|
| Practical Training 1.1 | Assessment of 'Samvardhana' using Anguli Pramana Parikshana | Demonstration-<br>Teacher shall demonstrate Anguli Pramana Parikshana on children, compare findings with standard parameters and explain alignment with age-appropriate growth. Divide students into pairs, assign them tasks and guide them to interpret results. Emphasize reasoning for deviations or alignment with growth norms. (Duration- 1 hr)<br>Case Based Learning |

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| | | Teacher shall present cases of children at various developmental stages and guide students in applying Anguli Pramana Parikshana. They would analyze their findings and discuss them in the context of classical textual references. (Duration- 1 hr) |
| Practical Training 1.2 | History Taking and General Physical Examination | Demonstration-<br>Teacher will demonstrate history-taking and general examination on children of different age-group (infant, toddler, school-going, adolescents) presenting with specific health conditions of varied clinical concern (acute or chronic) and specific dosha. Students will observe and practice history-taking and general examination in turns, under teacher's supervision. They will discuss the challenges faced, during examination with teacher to understand difference between healthy and sick child. (Duration-2 hrs)<br>Teacher will display video-clips demonstrating history-taking and general examination on children of different age-group (infant, toddler, school-going, adolescents) presenting with specific health conditions of varied clinical concern (acute or chronic) and specific dosha. Students will observe and practice on simulated patients/manekins, taking turns. They will discuss the possible challenges with teacher to understand difference between healthy and sick child. (Duration-2 hrs) |
| Practical Training 1.3 | Examination of Pranavaha Srotas (Respiratory System) | Demonstration-<br>The teacher will demonstrate the components of Pranavaha Srotas Parikshana (Examination of the Respiratory System) in different Pranavaha diseases, focusing on dosha-specific lakshanas and the techniques of inspection, palpation, percussion, and auscultation. The demonstration will include observations of chest movement, respiratory rate, use of accessory muscles, and abnormal breath sounds.<br>Following the demonstration, students will:<br>• Practice the examination techniques under the teacher’s supervision.<br>• Identify challenges they encounter during the process.<br>• Analyze findings collaboratively to differentiate between normal and abnormal observations.<br>Teacher will summarise the session. (Duration-2 hrs) |
| Practical Training 1.4 | Examination of Annavaha-Pureeshavaha Srotas (Gastro-intestinal System) | Demonstration<br>The teacher will demonstrate the components of Annavaha-Pureeshavaha Srotas Parikshana (Examination of the Gastro-intestinal System), focusing on dosha-specific lakshana to understand the samprapti and the techniques of inspection, palpation, percussion, and auscultation. The demonstration will include observations of distension, tenderness or abnormal bowel sounds.<br>Following the demonstration, students will: |

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| | | • Practice the examination techniques on patient/manekin/peer under the teacher's supervision.<br>• Identify challenges they encounter during the process.<br>• Analyze findings collaboratively to infer the Samprapti Ghatakas and differentiate between normal and abnormal observations.<br><br>Teacher will summarise the session. (Duration-2 hr) |
| Practical Training 1.5 | Examination of the Mamsavaha- Asthivaha Srotas (Musculoskeletal System). | Demonstration<br>The teacher will demonstrate the components of Mamsavaha- Asthivaha Srotas Parikshana (Examination of the Musculoskeletal System), focusing on dosha-specific lakshanas and the techniques of inspection, palpation, assessment of stance, gait, power, tone, postures, including joint-mobility and flexibility assessments<br>Following the demonstration, students will:<br><br>• Practice the examination techniques under the teacher's supervision.<br>• Identify challenges they encounter during the process.<br>• Analyze findings collaboratively to infer the Samprapti Ghatakas and differentiate between normal and abnormal observations.<br><br>Teacher will summarise the session. (Duration-2 hrs) |
| Practical Training 1.6 | Examination of Mutravaha-Shukravaha Srotas (Genitourinary System). | Demonstration<br>The teacher will demonstrate the Mutravaha and Shukravaha Srotas Parikshana (Genito-Urinary System Examination), including dosha-specific lakshana, through inspection, palpation, percussion, and diagnostic maneuvers. Students will observe key aspects such as urinary patterns, color, and genital abnormalities.<br>Following the demonstration, students will:<br><br>• Practice the examination techniques on patient/manekin under the teacher's supervision.<br>• Identify challenges they encounter during the process.<br>• Analyze findings collaboratively to identify conditions like UTIs, congenital anomalies, enuresis, and puberty-related |

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| | | issues.<br><br>Teacher will summarise the session. (Duration- 1 hr) |
| Practical Training 1.7 | Examination of Nadi Samsthana /Vata-Nadi vaha Srotas (Central Nervous System) | Demonstration<br>The teacher will demonstrate the components of Nadi Samsthana /Vata-Nadi vaha Srotas Parikshana (Examination of the Central Nervous System), focusing on dosha-specific lakshana to understand the samprapti and the techniques of CNS examination including Higher mental functions, Cranial Nerve examination, Motor system examination, Sensory system examination, Cerebellar function, Meningeal signs and Reflexes.<br>Following the demonstration, students will:<br>• Practice the examination techniques on patient/manekin/peer under the teacher's supervision.<br>• Identify challenges they encounter during the process.<br>• Analyze findings collaboratively to infer the Samprapti Ghatakas and differentiate between normal and abnormal observations.<br><br>Teacher will summarise the session.(Duration-2hrs) |
| Practical Training 1.8 | Clinical Examination based on Tridosha Siddhant. | Demonstration<br>The teacher will demonstrate the examination of a child based on Tridosha Siddhant, comparing the lakshana described in classical texts with those observed in the child, ( kshaya and vriddhi lakshana of dosha, dhatu, and mala.) The demonstration will also emphasize differentiating between a healthy and a sick child. Students will observe the process and practice the examination under supervision. (Duration-1 hr)<br>Case-based Learning<br>The teacher will discuss various cases highlighting specific dosha involvement. Students will work in pairs on assigned cases or case studies, observing dosha ulbanata by analyzing the associated signs and symptoms. They will then discuss their findings with the teacher and peers for inputs and feedback. (Duration-1 hr) |
| Practical Training 1.9 | Routine Laboratory Investigations (blood, urine and stool). | Demonstration-<br>The teacher will demonstrate how to select appropriate investigations for children, explaining the rationale behind each choice. The teacher will also demonstrate how to differentiate between normal and abnormal findings in lab results. Students will be paired and assigned patient cases that require blood, urine, and stool investigations. Under the teacher's guidance, they will determine the |

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| | | appropriate tests to order, providing reasoning for their choices. They will interpret the findings and categorize them as normal or abnormal. (Duration-2hrs) |
| Practical Training 1.10 | Ashta Sthana Pariksha-Demonstration | Demonstration<br>The teacher will explain and demonstrate Ashta Sthana Pariksha on a patient or simulated case, guiding students to connect observations with dosha lakshana. Students will be paired and assigned real or simulated cases. They will practice pediatric-specific techniques, and examine the case across all eight components. (Duration-1 hrs) |
| Practical Training 1.11 | Stanya Pariksha: Demonstration and interpretation. | Demonstration<br>Teacher will demonstrate the correct procedure for examining breast milk samples, focusing on attributes (tantumatva, apsumajjate, varna) mentioned in texts. Students will observe and assist in procedure. Students will be paired and assigned breast milk samples for 'stanya parikshana' and teacher will guide them through each step. Students will document and interpret their observations (Vataja, Pittaja or Kaphaja Stanya Dushti). |
| Practical Training 1.12 | Lumbar Puncture-Demonstration | Demonstration<br>The teacher will demonstrate the step-by-step lumbar puncture procedure on a model/manikin, emphasizing key steps, safety protocols, and challenges. Students will observe the demonstration, noting important aspects. They will then practice sterilization and preparation before performing the procedure on a manikin under guidance. They will discuss the challenges encountered during procedure and get clarifications from teacher. (Duration-1 hr) |
| **Experiential learning Activity** | | |
| **Experiential learning No** | **Name** | **Activity details** |
| Experiential-Learning 1.1 | Examination of Sick Child | Students shall attend and document a minimum of 3 different cases of sick children (jwara, karnashoola, shwasa, atisara, chhardi, apasmara, kamala, mootrakrichhra etc) corelating their findings with textual Vedana Jnana and Lakshana Jnana and reflect on the challenges faced. (Duration- 1 hr)<br>&<br>Students shall educate mothers on identifying the normal physiological changes in newborn and infants(navajata shishu kamala, atisara, chhardi, karnashoola etc) . They shall document a minimum of 2 such sessions, with reflections on the experiences and challenges faced. (Duration- 1 hr) |

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| | | OR<br>Teacher shall assign a case scenario on Vedana jnana and Lakshana Jnana to each student and give a week's time for presentation . Student shall, critically analyse the given case, evaluate different diagnostic possibilities, suggest counseling techniques to mothers and justify their conclusions. Peers and teachers shall review the presentation and students shall document their learnings and experiences in logbook. (Duration- 2 hrs) |
| Experiential-Learning 1.2 | History Taking and General Examination | Student will conduct history taking and Samanya Pareekshana (general examination) on a minimum of 3 cases across different age-group (infant, toddler, school-going, adolescents) presenting with different health conditions, of varied clinical concern (acute or chronic) and specific dosha. They will document the findings ( general and dosha specific) and challenges encountered, in logbook. (Duration-3 hrs)<br>OR<br>Teacher will divide students into pairs and provide each pair with a case vignette. Students will engage in role-play, with one acting as the examinee and the other as the examiner. The examinee will perform history taking and general examination on simulated patient/manekin/peer, based on the given vignette, while the examiner observes and provides feedback. Students will document their experiences and learnings in their logbook.(Duration-3 hrs) |
| Experiential-Learning 1.3 | Examination of Pranavaha Srotas (Respiratory System). | Student will conduct examination on a minimum of 2 cases across different age-group (infant, toddler, school-going, adolescents) presenting with Pranavaha Srotas conditions [Shwasa, Kasa, Pratishyaya, Tamak Shwasa etc.] of varied clinical concern (acute or chronic) and specific dosha. They will document case findings ( general and dosha specific) and challenges encountered, in logbook.(Duration-2 hrs)<br>OR<br>Teacher will divide students into pairs and provide each pair with a case vignette. Students will engage in role-play, with one acting as the examinee and the other as the examiner. The examinee will perform the Parikshana of Pranavaha Srotas (Respiratory System) on simulated patient/manekin/peer based on the given vignette, while the examiner observes and provides feedback. Students will document their experiences and learnings in a logbook.(Duration-2 hrs) |
| Experiential-Learning 1.4 | Examination of the Cardiovascular System. | Student will conduct examination of Rasa-Rakta vaha Srotas (Cardiovascular system) on a minimum of 2 cases across different age-group (infant, toddler, school-going, adolescents) presenting with Rasa-Rakta vaha Srotas (Cardiovascular) conditions [Sahaj Hrudaya Vikara (Congenital heart disease), Rheumatic fever, Pandu, Kamala, Hypertension etc.] of varied clinical concern (acute |

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| | | or chronic) and specific dosha. They will document their findings ( general and dosha specific) and challenges encountered, in logbook. (Duration-2 hrs)<br>OR<br>Teacher will divide students into pairs and provide each pair with a case vignette to engage in role-play as examinee & examiner. Examinee will conduct Pareekshana of Rasa-Rakta vaha Srotas (Cardiovascular System) on simulated patient/ manekin/ peer based on given case vignette. Examiner will observe and give feedback. Students will document their experience and learnings in logbook. (Duration-2 hrs) |
| Experiential-Learning 1.5 | Examination of Annavaha-Pureeshavaha Srotas (Gastro-intestinal system). | Student will conduct examination of Annavaha-Pureeshavaha Srotas (Gastro-intestinal system) on a minimum of three cases across different age-group (infant, toddler, school-going, adolescents) presenting with Annavaha-Pureeshavaha Srotas conditions (Chhardi, Atisara, Pravahika, Grahani, Parikartika etc.) of varied clinical concern (acute or chronic) and specific dosha. They will document case findings ( general and dosha specific) and challenges encountered, in logbook. (Duration-2 hrs)<br>OR<br>Teacher will divide students into pairs and provide each pair with a case vignette. Students will engage in role-play, with one acting as the examinee and the other as the examiner. The examinee will perform the Parikshana of Annavaha-Pureeshavaha Srotas (Gastro-intestinal system) on simulated patient/peer/manekin based on the given vignette, while the examiner observes and provides feedback. Students will document their experiences and learnings in logbook.(Duration-2 hrs) |
| Experiential-Learning 1.6 | Examination of the Mutravaha-Shukravaha Srotas (Genitourinary System). | Student will conduct examination of Mutravaha-Shukravaha Srotas (Genitourinary System) on a minimum of 3 cases across different age-group (infant, toddler, school-going, adolescents) presenting with Mutravaha-Shukravaha Srotas conditions [eg. Mutrakrichra, Mutraghata, Ashmari, Vrikkashotha, Precocious puberty, shandhatva, ksheena shukra etc.] of varied clinical concern (acute or chronic) and specific dosha. They will document case findings ( general and dosha specific) and challenges encountered, in logbook. (Duration-2 hrs)<br>OR<br>Teacher will divide students into pairs and provide each pair with a case vignette. Students will engage in role-play, with one acting as the examinee and the other as examiner. The examinee will perform the Parikshana of Mutravaha-Shukravaha Srotas (Genitourinary System) on simulated patient/manekin/peer, based on the given vignette, while the examiner observes and provides feedback. Students will document their experiences and learnings in logbook. (Duration-2 hrs) |
| Experiential-Learning 1.7 | Examination of the Mamsavaha -Asthivaha Srotas (Musculo-Skeletal System). | Student will conduct examination of Mamsavaha -Asthivaha Srotas (Musculo-Skeletal System) on a minimum of 3 cases across different age-group (infant, toddler, school-going, adolescents) presenting with Mamsavaha -Asthivaha Srotas conditions [eg. Balashosha, Phakka roga,Muscular Dystrophy, Amavata etc.] of varied clinical concern (acute or chronic) and specific dosha. They will document their findings ( general and dosha specific) and challenges encountered, in logbook. (Duration- 2 hrs) |

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| | | OR<br>Teacher will divide students into pairs and provide each pair with a case vignette. Students will engage in role-play, with one acting as the examinee and the other as the examiner. The examinee will perform the Parikshana of Mamsavaha -Asthivaha Srotas (Musculo-Skeletal System) on patient/manekin/peer based on the given vignette, while the examiner observes and provides feedback. Students will document their experiences and learnings in a logbook. (Duration-2 hrs) |
| Experiential-Learning 1.8 | Examination of the Vata-Nadi vaha Srotas (Central Nervous System). | Student will conduct examination of Nadi Samsthana /Vata-Nadi vaha Srotas (Central Nervous System) on a minimum of three cases across different age-group (infant, toddler, school-going, adolescents) presenting with Nadi Samsthana /Vata-Nadi vaha Srotas (Central Nervous System) conditions [eg. Cerebral Palsy, Ardita, Apasmara, Unmada, Developmental disorders etc.] of varied clinical concern (acute or chronic) and specific dosha. They will document their findings ( general and dosha specific) and challenges encountered, in logbook. (Duration-3 hrs)<br>OR<br>Teacher will divide students into pairs and provide each pair with a case vignette to engage in role-play as examinee & examiner. Examinee will conduct Parikshana of Nadi Samsthana /Vata-Nadi vaha Srotas (Central Nervous System) on manekin/peer/simulated patient based on given case vignette. Examiner will observe and give feedback. Students will document their experience and learnings in logbook. (Duration-3 hrs) |
| Experiential-Learning 1.9 | Tridosha Siddhant -Based Pediatric Examination | Students will evaluate at least two patients from different age groups (infants, toddlers, school-going children, and adolescents), preparing a checklist to compare symptoms of tridosha, dhatu, and mala imbalances as outlined in the texts. They will interpret dosha-specific findings in relation to age, weight, diet, family/social environment and document their observations in the logbook.(Duration-2 hrs)<br>OR<br>Workshop<br>A workshop can be conducted where students will create visual maps showing the relationship between Tridosha, Dhatu, and Mala in a clinical condition. They will discuss and imbalances of dosha, dhatu, and mala in children across different age groups. Teacher will facilitate discussion facilitator and students will document their learnings in the logbook.(Duration-2 hrs) |
| Experiential-Learning 1.10 | Advising and Interpreting Diagnostic Tests | Students will evaluate two patients with diverse clinical symptoms across different age groups, advise appropriate specific investigations (e.g., ECG, EEG, Echo, USG), and document the patient's history, clinical findings, investigation rationale, and challenges in their logbook. (Duration- 1 hr)<br>Students will evaluate one report from each investigation (ECG, EEG, Echo, Color Doppler, USG, CT Scan, MRI, PFT, Lumbar Puncture, and Bone Marrow Aspiration), determine if findings are normal or abnormal, and provide reasoning. Students will document their learnings in logbook. (Duration- 1 hr) |

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| Experiential-Learning 1.11 | Ashta Sthan Pariksha | Student will conduct Ashta Sthan Pariksha on a minimum of 2 cases across any of the different age-group (infant, toddler, school-going, adolescents) presenting with conditions affecting various systems [eg. Pranavaha, Annavaha, Pureeshvaha srotas etc.] of varied clinical concern (acute or chronic) involving dosha-specific imbalances. They will document their findings ( general and dosha specific) and challenges encountered, in logbook.(Duration-1 hr)<br>OR<br>Teacher will divide students into pairs and provide each pair with a case vignette to engage in role-play as examinee & examiner. Examinee will conduct Ashtasthana Pariksha on simulated patient based on given case vignette. Examiner will observe and give feedback. Students will document their experience and learnings in logbook.(Duration-1 hr) |
| Experiential-Learning 1.12 | 'Stanya-Pariksha' | Student will conduct Stanya-Parikshana on a minimum 2 samples of lactating mothers with children of different age-group (neonate,infant, toddlers) presenting with any disorders which may be related to feeding [Chhardi, Atisara, Kamala, balashosha, ksheeralasaka, ahiputana, Vibandh etc.] of varied clinical concern (acute or chronic) and specific dosha. They will document their findings ( general and dosha specific) and challenges encountered, in logbook.(Duration-2 hrs)<br>OR<br>Teacher will give previous case studies related to vitiation of breast milk, to students and engage in role-play as examinee & examiner. Examinee will analyse given case vignette and justify diagnosis while examiner give feedback based on appropriateness of diagnosis. Student will document their experience and learnings in logbook. (Duration-2 hrs) |

**Modular Assessment**

| **Assessment method** | **Hour** |
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| Instructions - Conduct a structured Modular assessment. Assessment will be for 50 marks. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.<br>Long Case Evaluation - 50 marks<br>Each domain carries 10 marks. Domain and competency to be assessed are as follows:<br>1. History taking- Elicits relevant history (Developmental, nutritional, immunization, Nidana Panchaka, Prakriti etc.)<br>2. Physical examination- Ashtasthana Pariksha, Dashvidha Pariksha, General and Systemic Examination.<br>3. Diagnostic Reasoning- Makes logical correlations.<br>4. Communication and Professionalism- Communicates with empathy to parents/caregivers, maintaining respect, ethics and professionalism.<br>5. Organisation and Clinical judgement- Demonstrates confidence, time management and logical approach.<br>OR<br>Any practical in converted form can be taken for assessment. (25 marks) | 4 |

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| AND<br><br>Any of the experiential as portfolio/ refelections / presentations can be taken as assessment.. ( 25 marks) | |

**Module 2** : Navajata Shishu Pareeksha Evam Paricharya (Examination and Care of newborn)

**Module Learning Objectives**
**(At the end of the module, the students should be able to)**

1. Perform comprehensive newborn examinations.
2. Manage high-risk newborns and apply appropriate referral policies.
3. Identify and manage congenital abnormalities with referral when needed.
4. Counsel parents on breastfeeding practices and address challenges.
5. Apply principles to ensure optimal growth and development.

**Unit 1 Navajata Shishu Pariksha (Examination of Newborn)**

- Examination at Birth
- Examination of Newborn Reflexes
- Daily Neonatal Assessment
- Gestational Age assessment
- Examination for adequacy of feeding
- Evaluation of minor and major congenital abnormalities
- Monitoring Vitals and Anthropometric Measurements
- Examination at Discharge

**References:** 14,31,35,38,60

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
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| CO2,CO5 | Outline the comprehensive care of a newborn in the labour room, including physiological changes at birth and process of birth asphyxia. | 2 | Lecture | CAN | Knows-how | L&PPT ,L_VC,ML |
| CO2,CO5,CO8 | Analyze the presentation, causes, and complications of congenital abnormalities in | 1 | Lecture | CAN | Knows- | L&PPT |

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| | newborns. | | | | how | ,L_VC,ML |
| CO1,CO2 | Analyze the diverse benefits of breastfeeding. | 1 | Lecture | CAN | Knows-how | L&PPT,L_VC,ML |
| CO1,CO2,CO5 | Demonstrate the newborn examination to identify normal physiological adaptations and abnormalities. | 2 | Practical Training 2.1 | PSY-GUD | Shows-how | D-BED,D-M,SIM |
| CO1,CO2,CO5 | Demonstrate neonatal reflexes and interpret their significance in development. | 2 | Practical Training 2.2 | PSY-GUD | Shows-how | D-BED,D-M,GBL |
| CO1,CO2,CO5 | Evaluate the newborn reflexes and identify variations. | 2 | Experiential-Learning 2.1 | PSY-MEC | Does | CBL,KL,SDL |
| CO2,CO5,CO6 | Demonstrate daily examination and monitoring of a newborn in neonatal ward. | 3 | Practical Training 2.3 | PSY-GUD | Knows-how | CBL,D-BED,KL |
| CO1,CO2,CO5,CO6 | Conduct daily neonatal examination, monitoring and documentation in neonatal ward, by ensuring competency and justify health concerns. | 3 | Experiential-Learning 2.2 | AFT-RES | Does | CBL,D-BED,RLE |
| CO1,CO2,CO5 | Demonstrate gestational age of newborn using appropriate assessment tools. | 1 | Practical Training 2.4 | PSY-GUD | Knows-how | CBL,D-BED,KL |
| CO1,CO2,CO5,CO6 | Evaluate gestational age of a newborn and explain its significance in neonatal care. | 2 | Experiential-Learning 2.3 | PSY-MEC | Does | D-BED,RLE,TBL |
| CO1,CO2,CO5 | Examine a neonate at discharge and guide caretakers on home care and danger signs. | 2 | Experiential- | AFT- | Shows- | RLE,SDL |

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| ,CO6 | | | Learning 2.4 | VAL | how | |

**Unit 2 Preparation for receiving the newborn**

- Prerequisites (History of gestation, knowledge of procedure, availability of necessary instruments/equipments)
- Preparation (Assembling instruments, medications and preparing Newborn care room/area, team-briefing)
- Aseptic measures ( Hand hygiene, sterilizing instruments/equipments, wearing PPE, adapting asepsis)
- Precautions( Monitoring, avoiding cross-contamination, engaging the skilled team)

**References:** 38,45,71

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO2,CO8 | Analyze the protocol for delivery and newborn reception, focusing on care and safety. | 2 | Lecture | CAN | Knows-how | L&PPT ,L_VC,ML |
| CO2,CO5,CO6 | Demonstrate preparations for newborn reception considering maternal history and expected outcomes. | 2 | Practical Training 2.5 | PSY-GUD | Shows-how | D-BED,PL,PSM |
| CO2,CO5,CO6 | Prepare for newborn reception considering maternal history and expected outcomes. | 3 | Experiential-Learning 2.5 | PSY-MEC | Does | KL,PL,SIM |
| CO2,CO5,CO7 | Demonstrate the use of instruments and essential medications in newborn care at birth. | 2 | Practical Training 2.6 | PSY-GUD | Shows-how | D,D-M,KL |

**Unit 3 Navajata Shishu Paricharya (Neonatal Care)-I**

- Routine Care
- Initial Steps of Resuscitation
- Observational Care
- Temperature regulation and KMC

**References:** 38,45,58,71

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO2,CO8 | Analyze the role of routine and observational care in neonatal growth and development. | 1 | Lecture | CAN | Knows-how | L&GD,L_VC,ML |
| CO1,CO2,CO8 | Analyze the significance of initial steps of resuscitation in optimizing newborn outcomes. | 1 | Lecture | CAN | Knows-how | L&GD,L_VC,ML |
| CO2 | Analyze physiological and artificial methods of neonatal thermoregulation. | 1 | Lecture | CAN | Knows-how | BL,DIS,L&GD |
| CO2,CO5,CO6 | Demonstrate Routine Care of Newborn. | 1 | Practical Training 2.7 | PSY-GUD | Shows-how | D,D-M,KL |
| CO2,CO5,CO6 | Demonstrate the initial steps of newborn resuscitation. | 2 | Practical Training 2.8 | PSY-GUD | Shows-how | D,KL,SIM |
| CO1,CO2,CO5,CO6 | Demonstrate Kangaroo Mother care method for temperature maintenance in neonates. | 1 | Practical Training 2.9 | PSY-GUD | Shows-how | D,KL,SIM |
| CO1,CO5,CO6,CO7 | Perform KMC in neonatal care and educate caregivers on its benefits. | 4 | Experiential-Learning 2.6 | AFT-VAL | Does | PL,RLE |
| CO2,CO5,CO6,CO7 | Perform the initial steps of resuscitation and positive pressure ventilation in newborns requiring intervention. | 4 | Experiential-Learning 2.7 | PSY-MEC | Does | RLE,SIM,TBL |

**Unit 4 Navajata Shishu Paricharya (Neonatal Care)- II**

- Naabhinaal kartana,
- Mukhshodhana,
- Garbhodaka vamana,
- Ulba Parimarjana,
- Snanakarma,
- Jatakarma samskara,
- Shishushayya,
- Dhoopana,
- Suryadarshana/Chandradarshana,
- Surya Rashmi Chikitsa,

**References:** 3,15,27,43,46,76,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO2,CO8 | Analyze the rationale and significance of each step of Navajata Shishu Paricharya. | 1 | Lecture | CAN | Knows-how | BS,L&GD,L_VC |
| CO2,CO8 | Analyze the scientific relevance and physiological impact of Surya Rashmi Chikitsa, Surya Darshan, and Chandra Darshan. | 1 | Lecture | CAN | Knows-how | BS,FC,L&GD |
| CO2,CO5,CO6 | Demonstrate the complete procedure of Jatakarma Samskara, detailing its purpose and the benefits it offers to the newborn. | 2 | Practical Training 2.10 | PSY-GUD | Shows-how | D,D-BED,D-M,RP,SIM |
| CO1,CO2,CO4,CO7 | Promote awareness of Dhoopana and Rakshakarma (aseptic and disinfectant measures) in newborn care. | 2 | Experiential-Learning 2.8 | AFT-VAL | Does | FV,KL,RLE |

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| CO1,CO6,CO8 | Promote awareness of Surya Rashmi Chikitsa and Chandra/Surya Darshan for neonatal health. | 2 | Experiential-Learning 2.9 | AFT-VAL | Shows-how | RLE,TBL |
| CO1,CO2,CO5,CO6,CO7 | Demonstrate the procedures of Navajata Shishu Paricharya. | 2 | Practical Training 2.11 | PSY-GUD | Shows-how | D,KL |

**Unit 5 Care of High-Risk Neonates**

- Preterm
- Post term
- Twins
- Low Birth Weight (VLBW,ELBW)
- High-Risk Neonates,
- Growth monitoring and red flags

**References:** 38,58,71

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO2,CO8 | Identify the challenges and healthcare needs of high-risk neonates. | 2 | Lecture | CC | Knows-how | L&PPT,L_VC,ML |
| CO2,CO5,CO6,CO8 | Demonstrate monitoring of high risk neonates. | 3 | Practical Training 2.12 | PSY-ADT | Shows-how | D,D-BED,KL,SIM |
| CO1,CO5,CO6 | Assess neonatal growth, identify red flags, and guide parents for timely intervention. | 3 | Experiential-Learning 2.10 | AFT-VAL | Shows-how | RLE |

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| CO2,CO5,CO6 | Evaluate high risk neonates(preterm/post-term/IUGR/SGA/Twins) to identify and priortize clinical presentations. | 4 | Experiential-Learning 2.11 | PSY-MEC | Does | RLE,SIM |
| CO1,CO2,CO5,CO6,CO7 | Demonstrate monitoring of high-risk neonates for early complications. | 2 | Practical Training 2.13 | PSY-GUD | Shows-how | D-BED,KL |

**Unit 6 Breast feeding**

- Importance and Advantages
- Composition
- Immunogenicity and Brain growth
- Contraindications (Absolute and relative)
- Techniques of Breast feeding
- Mechanical, hormonal , psychological and emotional difficulties during breast feeding.

**References:** 14,16,35,38,45,46,58

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO2,CO8 | Analyze the role of breastfeeding in reducing infant mortality and morbidity. (focusing on its immunological benefits, impact on brain development, composition, advantages, contraindications and proper feeding techniques) | 2 | Lecture | CAN | Knows-how | BS,FC,L&GD |
| CO2,CO6,CO8 | Demonstrate identification and management of common maternal and neonatal breastfeeding issues. | 2 | Practical Training 2.14 | PSY-GUD | Shows-how | D,SIM |

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| CO1,CO2,CO6,CO7 | Demonstrate appropriate feeding techniques for preterm, term, post-term, SGA, twins, and LBW infants. | 2 | Practical Training 2.15 | PSY-GUD | Shows-how | D,KL,Mnt |
| CO1,CO6 | Demonstrate Stanya Pariksha and interpret Stanya Dushti. | 1 | Practical Training 2.16 | PSY-GUD | Shows-how | D,KL,PL |
| CO1,CO6,CO8 | Appreciate the significance of matru aahar-vihaar on stanya and its role in promoting infant health. | 4 | Experiential-Learning 2.12 | AFT-VAL | Shows-how | RLE,TPW,W |
| CO1,CO2,CO5,CO6 | Educate and assist mothers in milk expression and feeding practices for preterm, post-term, LBW, SGA, Twins and IUGR babies. | 4 | Experiential-Learning 2.13 | AFT-VAL | Does | FV,RLE,SIM |

**Practical Training Activity**

| Practical No | Name | Activity details |
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| Practical Training 2.1 | Examination of newborn at birth | Demonstration-<br>The teacher will demonstrate the components of newborn examination on newborn to identify normal physiological adaptations and abnormalities, including observation of skin, head, chest, abdomen, and extremities. Students will be guided to observe key aspects such as reflexes, posture, muscle tone, and signs of common neonatal conditions.<br>Following the demonstration, students will:<br>• Practice the examination techniques under the teacher's supervision.<br>• Identify challenges, encountered during the process.<br>• Analyze findings collaboratively to differentiate between normal variations and conditions like jaundice, congenital anomalies, and respiratory distress.<br>Teacher will highlight keypoints and conclude the session. (Duration-2hrs) |
| Practical | Demonstration and | Demonstration- |

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| Training 2.2 | interpretation of Neonatal Reflexes. | The teacher will demonstrate neonatal reflexes, such as the Moro, rooting, grasp & other reflexes, and explain their significance in assessing neurological development. Students will observe and practice eliciting these reflexes on newborn/manekin under supervision, analyzing the findings to differentiate between normal responses and potential abnormalities. (Duration-2hrs) |
| Practical Training 2.3 | Daily Neonatal Examination and Monitoring. | Demonstration-<br>The teacher will demonstrate the components of the daily examination and monitoring of a newborn in the neonatal ward, including techniques for assessing vital signs, neonatal reflexes, general physical examination.<br>Following the demonstration, students will:<br>• Practice the examination techniques under the teacher's supervision.<br>• Identify challenges encountered during the examination process.<br>• Analyze findings collaboratively to differentiate between normal and abnormal observations and ensure proper neonatal care.<br>The teacher will summarize the session and provide feedback. (Duration- 2hrs)<br>CBL<br>Teacher will discuss a real case/case vignette/video clip and demonstrate analysis of the case, identification of deviations and its documnetation. Later teacher will pair the students and provide each pair with a real case/case vignette/video clip. Students will analyse and present their cases in turns. Teacher will facilitate discussion and summarise the session with feedback. (Duration-1hr) |
| Practical Training 2.4 | Gestational Age Assessment and its Significance. | Demonstration-<br>The teacher will demonstrate the assessment of gestational age (preterm/term/post-term/ IUGR/SGA/AGA/LGA) in a newborn using appropriate tools such as the Ballard Score, focusing on physical and neurological criteria, along with Ayushman Kumara Lakshana.<br>Following the demonstration, students will:<br>• Practice using the gestational age assessment tools under the teacher's supervision.<br>• Identify challenges encountered during the assessment process.<br>• Analyze findings collaboratively to determine the gestational age and interpret its clinical significance.<br>The teacher will summarize the session and provide constructive feedback. (Duration-1hr) |

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| Practical Training 2.5 | Preparation for Newborn Reception | Demonstration-<br>The teacher will demonstrate the protocol for receiving a newborn based on a comprehensive maternal history and anticipated outcomes (e.g., preterm, term, post-term, low birth weight, IUGR, asphyxiated, MAS). The demonstration will include essential preparations such as equipment setup, resuscitation readiness, and team coordination.<br>Following the demonstration, students will:<br>• Observe the teacher's demonstration and assist during the preparations.<br>• Practice the protocol for receiving a newborn under the teacher's supervision.<br>• Identify challenges, and receive feedback for improvement.<br>The teacher will conclude the session by summarizing key points and answering students' queries. (Duration-2hrs) |
| Practical Training 2.6 | Newborn Care Tools and Medications | Demonstration<br>The teacher will demonstrate the use of instruments discussing its indication and precutions (Cord Clamp, cord-cutting scissor, Sucction Unit, Self inflating Bag, Laryngoscope, ET tube, Feeding tube) and administration of essential medications (Vit K, Calcium gluconate, Adrenaline) in newborn care based on the anticipated outcome of delivery (e.g., preterm, term, post-term, low birth weight, IUGR, asphyxiated, MAS). The demonstration will include detailed guidance on the working, handling, indications, contraindications, precautions, maintenance of each instrument, and the use of medications, including their preparation, dosage, route of administration, contraindications, and potential adverse effects.<br>Following the demonstration, students will:<br>• Observe the teacher's demonstration and assist during the newborn care process.<br>• Practice the use of instruments and administration of medications under the teacher's supervision.<br>• Identify challenges, and receive feedback for improvement.<br>The teacher will conclude the session by summarizing key points, addressing student queries, and highlighting critical aspects of newborn care. (Duration-2hrs) |
| Practical Training 2.7 | Navajata Shishu Paricharya-Routine | Demonstration<br>The teacher will display video of routine care of newborn and demonstrate Navajata Shishu Paricharya (routine newborn care) on a |

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| | Newboen Care. | newborn or mannequin. Students will observe and assist the teacher in receiving the newborn and providing routine care. Following the demonstration, students will perform the procedures on a mannequin or newborn under the teacher's supervision. (Duration-1hr) |
| Practical Training 2.8 | Navajata Shishu Paricharya- Initial Steps of New born Resuscitation | Demonstration-<br>The teacher will demonstrate the initial steps of resuscitation (Position, Suction, Stimulation, and Reposition) on a newborn or mannequin identified as requiring intervention.<br>Following the demonstration, students will:<br>• Observe and assist the teacher in receiving the newborn and identifying those requiring resuscitation.<br>• Practice the initial steps of resuscitation on a mannequin or newborn under the teacher's supervision.<br>• Identify any challenges encountered during the process and seek clarification.<br>The teacher will summarize the session, provide feedback, and address any questions.(Duration-2hrs) |
| Practical Training 2.9 | Kangaroo Mother Care | Demonstration-<br>The teacher will demonstrate the step-by-step application of Kangaroo Mother Care (KMC), including skin-to-skin contact, positioning, and monitoring the baby's temperature.<br>Following the demonstration, students will:<br>• Observe the teacher's demonstration and assist in the process.<br>• Practice KMC on a newborn or mannequin under the teacher's supervision.<br>• Identify any challenges encountered and seek clarification.<br>The teacher will summarize the session, provide feedback, and address any questions.(Duration-2hrs) |
| Practical Training 2.10 | Jatakarma Samskara: Procedure, Purpose & Benefits | Demonstration<br>Teacher shall demonstrate the steps of Jatakarma Samskara (Madhu-ghrita prashana, stanyapana) and educate parents about its scientific relevance, including nutritional, immunological, and feeding guidelines. Following the demonstration, students will: |

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| | | • Observe and assist the teacher in performing the procedure.<br>• Practice in newborn and identify challenges encountered during the procedure and discuss solutions.<br>• Analyze the procedure's benefits and differentiate between normal and abnormal responses.<br><br>Teacher will summarize the session.(Duration-2hrs) |
| Practical Training 2.11 | Navjat Shishu Paricharya | Demonstration-<br>The teacher will demonstrate the procedures of Navajata Shishu Paricharya on a newborn or mannequin, highlighting key steps and their clinical significance.<br>Following the demonstration, students will:<br><br>• Observe and assist the teacher in Navajata Shishu Paricharya during their postings in delivery units.<br>• Practice the procedures on a mannequin under supervision before performing them on a newborn.<br>• Compare and integrate Navajata Shishu Paricharya with modern newborn care, analyzing the merits and demerits of both approaches.<br><br>The teacher will summarize the session.(Duration-2hrs) |
| Practical Training 2.12 | Monitoring and assessment High-Risk Neonates | Demonstration-<br>The teacher will demonstrate the process of monitoring high-risk neonates, including:<br><br>• Vital signs assessment (temperature, heart rate, respiratory rate, oxygen saturation).<br>• Neurological monitoring (tone, reflexes, alertness).<br>• Growth parameters (weight, length, head circumference).<br>• Observation of feeding patterns, hydration status, and signs of distress.<br><br>Following the demonstration, students will: |

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| | | • Practice neonatal monitoring techniques under the teacher's supervision.<br>• Identify challenges faced while performing the assessments.<br>• Analyze the monitored data collaboratively to interpret clinical status and differentiate between normal and abnormal findings.<br><br>The teacher will summarize the session, addressing key observations, clarifying doubts, and reinforcing best practices. (Duration-3 hrs) |
| Practical Training 2.13 | Monitoring high risk (Twin, LBW,VLBW,ELBW,)Neonates | Demonstration-<br>The teacher will demonstrate the monitoring of high-risk neonates (e.g., Twin Neonates, LBW, VLBW, ELBW), focusing on thermal regulation, nutrition, IV therapy, and aseptic measures.<br>Following the demonstration, students will:<br><br>• Observe and assist in examining high-risk neonates, focusing on the specified parameters.<br>• Practice the monitoring techniques on neonate under teacher supervision.<br>• Evaluate their performance and identify areas for improvement through guided feedback.<br><br>The teacher will summarize the session. (Duration-2hrs) |
| Practical Training 2.14 | Stanya Pariksha and its Clinical Interpretation | Demostration<br>The teacher will demonstrate the procedure of Stanya Pariksha as per the protocol, including its clinical interpretation (Ashta Stanya Dushti and Dosha) and significance in newborn health.<br>Following the demonstration, students will:<br><br>• Observe and assist the teacher during Stanya Pariksha.<br>• Practice Stanya Pariksha on samples from breastfeeding mothers, under the teacher's supervision.<br>• Analyze findings and receive feedback for improvement.<br><br>The teacher will conclude the session by summarizing key points and answering students' queries. (Duration-1hr) |
| Practical | Identification and | Demonstration |

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| Training 2.15 | Management of Breastfeeding Issues | The teacher will demonstrate the identification and management of common maternal and neonatal breastfeeding issues, covering mechanical, physiological, psychological, and hormonal factors. The demonstration will include techniques for latching, positioning, and addressing common problems like nipple pain, engorgement, improper latch and inadequate lactation.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in identifying and managing breastfeeding issues.<br>• Practice identifying and managing breastfeeding issues under the teacher’s supervision.<br>• Identify challenges, and receive feedback for improvement.<br>The teacher will conclude the session by summarizing key points and answering students' questions. (Duration-2hrs) |
| Practical Training 2.16 | Feeding Techniques for Diverse Infant Conditions | Demonstration<br>The teacher will demonstrate in newborn/manekin, breastfeeding techniques for preterm, term, post-term, SGA, twins, and LBW infants, appropriate feeding techniques (Trophic feeding, nutritional feeding,fortification, feeding in special circumstances,Direct Breast feeding-positioning and latching, expressed breast milk feeding, paladai feeding) for each category.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in positioning, latching and handling different categories of neonates.<br>• Practice breastfeeding techniques under the teacher’s supervision.<br>• Identify challenges, and receive feedback for improvement.<br>The teacher will conclude the session by summarizing key points and answering students' questions. (Duration-2hrs) |
| **Experiential learning Activity** | | |
| **Experiential learning No** | **Name** | **Activity details** |
| Experiential-Learning 2.1 | Evaluation of Newborn Reflexes. | Students will evaluate newborn reflexes (Grasp, Glabellar Tap, Moro's, Stepping, Tonic neck reflex. etc) on minimum 5 newborns. Determine if the reflexes are normal for age, delayed, asymmetrical or absent. They will record their observations, interpretations and challenges faced during evaluation in their logbook.(Duration- 2 hrs) |

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| | | OR<br>Teacher will provide two video clips (from online and offline sources) of examination of newborn reflexes to each student. Students will be asked to identify normal for age, delayed, asymmetrical or absence of reflexes in displayed video clips. They will record their observations, interpretations and challenges they observed, during evaluation in their logbook.(Duration- 2 hrs) |
| Experiential-Learning 2.2 | Daily Neonatal Examination, Monitoring and Documentation. | Student will conduct daily neonatal examination(Head to toe examination with emphasis on Anterior fontanelle, vitals, umbilical stump examination, caput succedaneum, cephalohematoma, skin changes, cry, and sleep pattern, colour, hypothermia, hyperthermia, bowel habits, anthropometric measurements) for a minimum of 3 newborns in the ward. They will record the findings in logbook.(Duration- 3 hrs)<br>OR<br>Students will document the summary of any three neonates, they attended to, during their outpostings in the logbook.(Duration- 3 hrs) |
| Experiential-Learning 2.3 | Assessment of Gestational Age and its Significance | Students will assess newborns for gestational age using appropriate tools. Teacher will facilitate discussion on accuracy of technique. They will document with reasons, gestational age of minimum 5 newborns in their logbook. (Duration- 2 hrs)<br>OR<br>Teacher will divide students into pairs and provide each pair with two video clips of gestational age assessment of newborns and ask students to prepare a presentation justifying the gestational age of baby. Teacher will facilitate discussion. Students will document their learnings in logbook. (Duration- 2 hrs) |
| Experiential-Learning 2.4 | Examination of Neonate at Discharge and Counselling for Home Care. | Student will examine a minimum of three newborn babies at the time of discharge. They will guide a minimum of three parents/caretakers on homecare (maintaining hygiene and temperature, avoiding top feed, avoiding kajal application, oiling ears) identification of danger signs( lethargy, irritability, feeding difficulties) and follow-up appointments ensuring a safe transition to home. They will document their experience and learnings in logbook. (Duration- 2 hrs) |
| Experiential-Learning 2.5 | Preparation for Newborn Reception | Student will evaluate maternal history (gestational diabetes, CPD, PIH,) of at least three expecting mothers and based on gesational age (Preterm/term/post-term), apply standard protocols in prepartion of receiving newborn. Teacher and peers will provide feedback. They will document their experience and learnings in logbook.(Duration-3 hrs)<br>OR<br>Teacher will conduct a minimum of three mock drills focused on the preparation for receiving a newborn. The teacher will provide students with relevant maternal history, and the students will carry out the necessary preparations. Following each mock drill, the teacher will facilitate a discussion and feedback session to enhance learning. (Duration- 3 hrs) |
| Experiential- | Kangaroo Mother Care | Students will design an educational leaflet, poster, or digital content (e.g., infographic, short video) to educate at least five parents |

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| Learning 2.6 | | of newborns about practicing Kangaroo Mother Care (KMC), with or without a KMC kit (in resource-limited settings). They will gather parent feedback, document their own experience, and reflect on key learnings from these interactions in their logbook. (Duration- 2hrs)<br>Students will monitor and record the daily progress of at least two newborns receiving KMC, documenting their observations and reflections in the logbook. (Duration- 2hrs) |
| Experiential-Learning 2.7 | Initial Steps of Resuscitation | Students will document a minimum of two real cases where the initial steps of resuscitation and positive pressure ventilation were provided during clinical postings. They will record their experiences, challenges encountered, and feedback from the teacher in their logbook.(Duration-4 hrs)<br>Teacher will conduct at least four mock resuscitation drills. Each student will participate in a minimum of two drills, performing the initial steps of resuscitation and positive pressure ventilation in a simulated environment while adhering to proper protocols. The mock drills will be recorded and provided to students for self-analysis. Teacher will facilitate discussion and students will document their experiences and key learnings in their logbook.(Duration-4 hrs) |
| Experiential-Learning 2.8 | Surya Rashmi Chikitsa and Chandra Darshana/Surya Darshan | Students will create an educational tool (leaflet, poster, video, or infographic) to educate at least four parents of neonates on Surya Rashmi Chikitsa (jaundice management), Surya Darshan (rickets prevention), and Chandra Darshan (early autism detection). They will document their experience and parent feedback on the session in logbook.(Duration-2 hrs) |
| Experiential-Learning 2.9 | Dhoopana and Rakshakarma in Newborn Care | Students will create one of the following: an educational leaflet, poster, or digital content (infographic or short video) based on scientific evidence to educate at least two parents of newborns. Alternatively, they can participate in at least one awareness session on the importance and effects of Dhoopana (fumigation) and Rakshakarma (aseptic protective measures) in newborn care, including guidance on preventing the adverse effects of improper Dhoopana Karma usage. Students will document their experience and challenges faced during parent counseling in a logbook. (Duration-1 hr)<br>Students will develop a standard protocol for Dhoopana and Rakshakarma in newborn care. Teacher will facilitate discussion and assist in implementing the protocol in newborn care in ward. Students will collect swab from the neonatal ward for culture and sensitivity test to study efficacy of dhoopana and rakshakarma. They will document the results in the logbook. (Duration-1 hr) |
| Experiential-Learning 2.10 | Neonatal Growth Assessment & Early Intervention | Students will assess neonatal growth and clinical status to identify and document red flag signs, including lethargy, inconsolable cry, dyspnoea, apnea, bleeding, hypothermia, feeding difficulties, dehydration, hypotonia, hypertonia, jaundice, grunting, and growth deviations. They will record a minimum of five cases with identified red flags in their logbook. ( Duration-2 hrs)<br>Students will educate minimum of three newborn mothers for early identification redflag signs in their baby in home environment. They will document their experience and learnings in logbook. (Duration- 1 hr) |

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| | | OR<br>Teacher will divide students into pairs and provide each pair with two case studies ( online-offline sources) with various redflags and students will be asked to identify and justify the condition. Teacher will facilitate discusion and students will document their learnings in logbook. (Duration-3 hrs) |
| Experiential-Learning 2.11 | High-Risk Neonate Assessment | Students will evaluate neonates and categorize them as high-risk based on clinical parameters such as birth weight, gestational age, and red flag signs (e.g., lethargy, inconsolable cry, dyspnea, apnea, bleeding, hypothermia, feeding difficulties, dehydration, hypotonia, hypertonia, jaundice, grunting, and growth deviations). Students will document minimum of three such cases in their logbook. (Duration-4 hrs)<br>OR<br>Teacher will divide students into pairs and provide each pair with five clinical case vignette/videos (from different online and offline sources) with relevant information and students will categorise babies with justification. Teacher will facilitate discussion and students will document their learnings in logbook.(Duration-4 hrs) |
| Experiential-Learning 2.12 | Matru Aahar-Vihaar for Infant Health | Students will collect data on matru aahar-vihaar (maternal diet and lifestyle) from a minimum of 10 lactating mothers. They will interpret its influence on stanya dushti (breast milk vitiation) and neonatal well-being (conditions such as atisara, ahiputana, chhardi, etc.). The data, including dosha-specific diet and regimen, will be documented, analyzed, and compared. Students will present their findings, followed by a teacher-facilitated group discussion. They will document their learnings in logbook. (Duration- 2 hrs)<br>Students will participate in workshop focusing on the impact of matru aahar-vihaar (maternal diet and lifestyle) on breastfeeding. They will engage in hands-on activities such as cooking demonstrations and lifestyle modification sessions to practically apply their knowledge. Students will practice counseling on individualized dietary plans or supplementation regimens to enhance the nutritional value of breast milk in lactating mothers. They will document their reflections and integrate this learning into clinical practice. (Duration- 2 hrs) |
| Experiential-Learning 2.13 | Maternal Guidance in Infant Feeding | Students will assist at least four mothers of babies falling into any of the following categories: preterm, post-term, IUGR, LBW, Twins or SGA in the maternity ward with appropriate feeding techniques (Trophic feeding, nutritional feeding,fortification, feeding in special circumstances,Direct Breast feeding-positioning and latching, expressed breast milk feeding, paladai feeding). They will document their experiences, challenges, and feedback from mothers in their logbook. (Duration-2 hrs)<br>Students will visit Breast Milk Bank to understand the techniques of breast milk storage and the dispensing protocol. They will document their observations and learnings in the logbook. (Duration-2 hrs) |

| Modular Assessment | |
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| **Assessment method** | **Hour** |
| Instructions - Conduct a structured Modular assessment. Assessment will be for 75 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.<br>Mock Drill- Newborn Resuscitation (75 marks)- for assessment, checklist can be made using following points (15 marks each)-<br>1. Preparation (Prebirth Readiness)<br>2. Initial Assessment<br>3.Initial Steps of Resuscitation(Golden steps)<br>4. Positive Pressure Ventilation<br>5. Communication and team-work<br>OR<br>Any practical in converted form can be taken for assessment..(35 marks)<br>AND<br>Any of the experiential as portfolio/ refelections / presentations can be taken as assessment.. ( 40 Marks) | 6 |

**Module 3** : Bala Samvardhana evam Mano Vigyana - Child Growth, Development and Psychology

**Module Learning Objectives**
**(At the end of the module, the students should be able to)**

1. Analyze stages of ‘Samvardhana’ (growth and development).
2. Evaluate factors influencing child growth and assessment methods.
3. Apply Manas Prakriti assessment and child psychology for mental well-being through Satvawajaya Chikitsa.
4. Demonstrate ethical communication with patients and guardians.

**Unit 1 Samvardhana (Physiology of Growth & Development)**

- Growth and Development (Domains and Milestones)
- Growth Spurts
- Anatomical & physiological Variations (Child vs Adult)
- Anthropometry and Objective Parameters – Weight, Height, Mid arm circumference, Head circumference, Chest circumference, Growth velocity, BMI, Crown-heel length, Upper and Lower Segment Ratio, Skin fold thickness, Bone Age

**References:** 1,3,5,7,29,35,40,43,45

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO8 | Analyze the stages of 'Samvardhana,' (Growth and development) highlighting key milestones and their significance. | 1 | Lecture | CAN | Knows-how | FC,L&GD,L_VC |
| CO1,CO6 | Demonstrate the assessment of 'Samvardhana' using growth and development principles, identify deviations. | 2 | Practical Training 3.1 | PSY-GUD | Shows-how | D,KL,PBL |

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| CO1,CO5 | Perform 'Samvardhana' assessment and interpretation. | 2 | Experiential-Learning 3.1 | PSY-MEC | Does | KL,PBL,PrBL |
| CO1 | Analyze the physiological mechanisms of growth spurts and their impact on 'Samvardhana' (Growth and Development). | 1 | Lecture | CAN | Knows-how | FC,L&GD,L_VC |
| CO1,CO6 | Examine and interpret anatomical and physiological variations of growth. | 2 | Experiential-Learning 3.2 | PSY-MEC | Does | KL,RLE,SDL |
| CO1 | Analyze and describe the key anatomical and physiological differences between children and adults. | 1 | Lecture | CAN | Knows-how | FC,L&PPT ,L_VC |
| CO1 | Demonstrate assessment of age-appropriate anatomical and physiological variations in child growth and development. | 1 | Practical Training 3.2 | PSY-GUD | Shows-how | D,KL,PBL,SIM |
| CO1,CO8 | Evaluate the role of anthropometric measurements and objective parameters in assessing 'Samvardhana' in children. | 1 | Lecture | CAN | Knows-how | FC,L&PPT ,L_VC |
| CO1 | Demonstrate accurate measurement techniques for anthropometric parameters and interpret the results. | 1 | Practical Training 3.3 | PSY-GUD | Shows-how | D,KL,PBL |
| CO1,CO6 | Conduct specific anthropometric measurement methods educate parents/caregivers on their significance . | 2 | Experiential-Learning 3.3 | AFT-RES | Does | KL,PBL,RLE |

**Unit 2 Assessment of Growth & Development- Part I**

- Fenton growth chart
- Growth charts - IAP & WHO

- Denver, Trivandrum and Baroda developmental screening Tools
- Bayley scales for infant and Toddler
- Dental Age and development

**References:** 1,3,5,7,35,45,58

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO2,CO5,CO6 | Demonstrate Fenton Growth Chart use for assessing and monitoring preterm infants. | 2 | Practical Training 3.4 | PSY-GUD | Shows-how | D-BED,KL,SIM |
| CO1,CO2,CO5,CO6 | Accurately plot and analyze growth on the Fenton Chart for precise clinical interpretation. | 3 | Experiential-Learning 3.4 | PSY-MEC | Does | CBL,PL,SIM |
| CO1,CO5,CO8 | Demonstrate the assessment of growth using IAP & WHO growth charts, along with Prakriti analysis. | 2 | Practical Training 3.5 | PSY-GUD | Shows-how | D,PL,TBL |
| CO1,CO5 | Assess growth using IAP & WHO charts and Prakriti analysis to identify deviations. | 1 | Experiential-Learning 3.5 | PSY-ADT | Does | RLE,SDL,SIM |
| CO1,CO8 | Compare strengths and limitations of various Developmental Screening Tests used in pediatric care. | 1 | Lecture | CAN | Knows-how | FC,L&GD,L&PPT |
| CO1,CO5,CO6 | Evaluate dental development and age, and explain findings to parents. | 1 | Experiential-Learning 3.6 | AFT-VAL | Does | PrBL,RLE,TPW |

**Unit 3 Assessment of Growth & Development- Part II**

- Precocious puberty & delayed puberty
- Hearing and Vision Screening
- Developmental delay, Speech delay

- Developmental and Behavioural Screening

**References:** 1,29,35,45

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO5,CO6 ,CO8 | Demonstrate application and interpretation of Developmental Screening Tests . (Denver Screening Test, Trivandrum Developmental Screening Chart and Baroda Developmental Screening Test Bayley scales for infant and Toddler). | 2 | Practical Training 3.6 | PSY-MEC | Shows-how | D,KL,PBL |
| CO1,CO8 | Describe Sexual Maturity Rating (SMR) stages and analyze their role in assessing puberty progression. | 1 | Lecture | CAN | Knows-how | BL,CBL, L&PPT ,L_VC |
| CO1,CO5,CO6 | Demonstrate application and interpretation of Sexual Maturity Rating Scale . | 2 | Practical Training 3.7 | PSY-GUD | Shows-how | D,KL |
| CO1,CO5,CO6 | Perform SMR assessment to identify pubertal disorders and educate the importance and finding to caregivers. | 1 | Experiential-Learning 3.7 | AFT-VAL | Does | FV,PrBL, RLE |
| CO1,CO6 | Demonstrate hearing and vision screening tests and interpret results. | 1 | Practical Training 3.8 | PSY-GUD | Shows-how | D,KL,SIM |
| CO1,CO6 | Conduct periodic hearing and vision screening tests. | 2 | Experiential-Learning 3.8 | PSY-MEC | Does | FV,KL,RLE |
| CO1,CO5,CO6 | Demonstrate application and interpretation of Behavioural Screening Tests . (Ages and stages Questionnaires-SE, M-CHAT, Conners Rating Scale, DSM V , Vanderbilt Assessment Scales) | 1 | Practical Training 3.9 | PSY-GUD | Shows-how | CBL,D,IBL |
| CO1,CO5,CO6 | Apply and interpret Behavioural screening tests. (Ages and stages Questionnaires-SE, M-CHAT, Conners Rating Scale, DSM V , Vanderbilt Assessment Scales) for early identification, confirmation of diagnosis and explain it to parents/caregivers. | 3 | Experiential-Learning 3.9 | PSY-ADT | Does | CBL,RLE ,SIM |

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| CO1,CO5,CO8 | Analyze growth and development deviations in pediatric practice. | 2 | Lecture | CAN | Knows-how | BL,CBL, FC |

**Unit 4 Clinical and Scientific Relevance of Samskara - I**

- Jatakarma samskara
- Namakaran samskara
- Nishkramana samskara
- Annaprashana samskara
- Chudakarma samskara

**References:** 3,26,43,46,47,49,76,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO6,CO8 | Demonstrate the scientific and clinical relevance of 'Samskaras' in assessment of 'Samvardhana' . ( Jatakarma sanskara, Namakaran sanskara, Nishkramana sanskara, Annaprashana samskara ) | 2 | Practical Training 3.10 | PSY-GUD | Shows-how | CBL,D-BED,PSM, SIM |
| CO1,CO6,CO8 | Examine growth and development of child using Samskara as a tool in clinical or community settings.<br>(Jatakarma, Namakaran, Nishkramana, Anna Prashana Samsakara). | 2 | Experiential-Learning 3.10 | PSY-MEC | Does | PBL,PrBL ,TPW |

**Unit 5 Clinical and Scientific Relevance of Samskara – II**

- Karnavedhana Samskara
- Aksharlekhana Samskara
- Upanayana Samskara
- Vedarambha Samskara
- Samavartana Samskara
- Other Samskaras - Chandra Darshana, Surya Darshana, Dolashayan, Phala Prashana

**References:** 3,26,43,46,47,49,57,76,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO6,CO8 | Demonstrate assessment of 'Samvardhana' by applying Samskaras in clinical practice. (Karnavedhana Samskara, Aksharlekhana Samskara, Upanayana Samskara, Vedarambha Samskara, Samavartana Samskara) | 2 | Practical Training 3.11 | PSY-GUD | Shows-how | D,KL,SIM |
| CO1,CO2,CO5 | Examine growth and development of child using Samskara as a tool in clinical or community settings.- II<br><br>(Karnavedhana Samskara, Aksharlekhana Samskara, Vedarambha Samskara, Upanayana Samskara, ). | 2 | Experiential-Learning 3.11 | PSY-MEC | Does | FV,PBL,SDL |

**Unit 6 Bala Mano Vigyana (Child Psychology)**

- Psychological Health and development
- Psychological theories
- Deviation
- Scales and Tools
- Satwavajaya chikitsa, methods of counseling

**References:** 1,3,5,26,35,43,46,49,59,76,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO6,CO8 | Analyze child psychology including Manas Prakriti and its significance in child health. | 2 | Lecture | CAN | Knows-how | FC,L&GD,L_VC |
| CO1,CO6,CO8 | Demonstrate psychological assessment in children, integrating *Manas Prakriti* evaluation. (Weschler Intelligence Scale for Children, Stanford Binet Intelligence Scales, Senguin Form Board Test, Draw a man- test) | 2 | Practical Training 3.12 | PSY-GUD | Shows-how | D,KL,SIM |

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| CO1,CO5,CO6 | Conduct age-appropriate psychological assessments and effectively communicate findings to parents or caregivers.<br>(Weschler Intelligence Scale for Children, Stanford Binet Intelligence Scales, Senguin Form Board Test, Draw a man- test) | 3 | Experiential-Learning 3.12 | PSY-MEC | Does | CBL,PBL,RLE |
| CO1,CO6,CO8 | Integrate Satwavajaya Chikitsa in pediatric care for holistic child development. | 2 | Experiential-Learning 3.13 | AFT-VAL | Does | RP,SDL |

**Practical Training Activity**

| Practical No | Name | Activity details |
|---|---|---|
| Practical Training 3.1 | Assessment of Samvardhana (Growth and Development) and Deviations | Demonstration-<br>The teacher will demonstrate the step-by-step assessment of growth and development, including anthropometry and milestone attainment, on children. The teacher will also present cases with deviations from standard growth and development.Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in the assessment process.<br>• Practice growth and development assessment on children or a mannequin under the teacher’s supervision.<br>• Identify any challenges encountered and seek clarification.<br>The teacher will summarize the session, provide feedback, and address any questions. (Duration- 2 hrs) |
| Practical Training 3.2 | Assessment of Growth Variations | Demonstration-<br>The teacher will demonstrate age-appropriate anatomical and physiological variations in children compared to adults on a child/manekin/simulated patient, focusing on clinical examination techniques for assessing growth parameters.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in assessing growth parameters.<br>• Practice assessing growth parameters in children under teacher supervision.<br>• Interpret anatomical and physiological variations in growth between children and adults. |

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| | | • Identify any challenges encountered and seek clarification.<br><br>The teacher will summarize the session, provide feedback, and address any questions. (Duration- 1hrs) |
| Practical Training 3.3 | Anthropometric Measurement | Demonstration<br>The teacher will demonstrate accurate anthropometric measurement techniques to diagnose conditions such as wasting, stunting, emaciation, obesity, and protein-energy malnutrition (acute, chronic, and acute-on-chronic). Following the demonstration, students will:<br><br>• Observe the teacher's demonstration and assist in measuring anthropometric parameters.<br>• Practice anthropometric measurements on children under teacher supervision.<br>• Analyze measurements to identify growth deviations and nutritional status.<br>• Identify any challenges encountered and seek clarification.<br><br>The teacher will summarize the session, provide feedback, and address any questions. (Duration- 1 hr) |
| Practical Training 3.4 | Fenton Growth Chart in Preterm Assessment | Demonstration<br>The teacher will demonstrate accurate anthropometric measurement techniques using a calibrated scale, infantometer, and measuring tape to assess growth parameters in preterm infants. The process will include plotting measurements on the Fenton Growth Chart with an emphasis on accuracy, safety, and sterile equipment usage. Common challenges, errors, proper data placement, and interpretation of growth trends will be highlighted.<br>Following the demonstration, students will:<br><br>1. Observe the teacher's demonstration and assist in measuring anthropometric parameters.<br>2. Practice measuring and plotting growth data on the Fenton Growth Chart under teacher supervision.<br>3. Analyze plotted growth trends to identify potential concerns in preterm infants.<br>4. Identify challenges encountered and seek clarification. |

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| | | The teacher will summarize the session, provide feedback, and address any questions. (Duration-2 hrs) |
| Practical Training 3.5 | Growth Assessment with IAP & WHO Charts | Demonstration<br>The teacher will demonstrate the step-by-step process of plotting growth parameters on the IAP and WHO growth charts, explaining their significance in monitoring early childhood growth, analyzing growth spurts and integrating Prakriti analysis. The teacher will also demonstrate how to calculate nutritional indices, including the Ponderal Index, BMI, and Rao & Dugdale formulae, to identify deviations in growth.<br>Following the demonstration, students will:<br>• Observe the teacher's demonstration and assist in plotting growth charts.<br>• Practice plotting growth charts and calculating nutritional indices in clinical settings under teacher supervision, incorporating Prakriti analysis.<br>• Analyze growth patterns, including identifying growth spurts, deviations and integrating Prakriti insights.<br>• Identify any challenges encountered and seek clarification.<br>The teacher will summarize the session, provide feedback, and address any questions. (Duration-2hrs) |
| Practical Training 3.6 | Developmental Screening Tests | Demonstration<br>The teacher will demonstrate the application of various developmental screening tests (Denver Screening Test, Trivandrum Developmental Screening Chart, Baroda Developmental Screening Test, and Bayley Scales for Infant and Toddler). The demonstration will include calculating mental age, developmental quotient, and intelligence quotient, along with interpreting findings related to short stature, growth failure, endocrine disorders, learning disabilities, intellectual disabilities, and speech delay. Students will observe the process and practice under teacher supervision. Teacher will summarise the session and provide feedback. (Duration- 2 hrs) |
| Practical Training 3.7 | Behavioural Screening tests | Demonstration:<br>Teacher shall demonstrate use of different Behavioural Screening tests(Ages and stages Questionnaires-SE, M-CHAT, Conners Rating Scale, DSM V , Vanderbilt Assessment Scales) to assess children for early identification of emotional and behavioural problems. Students shall observe and apply these tests on assigned cases under the guidance of the teacher. Tecaher shall provide |

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| | | feedback and summarise the session. (Duration-1 hr) |
| Practical Training 3.8 | Sexual Maturity Rating Scale | Demonstration<br>The teacher will demonstrate the step-by-step process of using Tanner Staging and the Sexual Maturity Rating (SMR) Scale, including the use of an orchidometer, to monitor and classify puberty progression in children and adolescents. The teacher will emphasize the significance of SMR in identifying precocious and delayed puberty, explaining its clinical relevance in growth and endocrine assessment.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in applying Tanner Staging and the SMR Scale.<br>• Practice assessing puberty progression using Tanner Staging, the SMR Scale, and an orchidometer under teacher supervision.<br>• Interpret findings to identify normal and abnormal puberty progression, including cases of precocious or delayed puberty.<br>• Identify any challenges encountered and seek clarification.<br>The teacher will summarize the session with keypoints.(Duration-2hrs) |
| Practical Training 3.9 | Hearing and Vision Test | Demonstration<br>The teacher will demonstrate the step-by-step process of conducting Hearing and Vision Screening Tests in children, including Audiometry for hearing and Snellen's Chart, Ishihara Chart, and Stereoacuity tests for vision. The teacher will emphasize the importance of early detection of hearing loss and vision issues, explaining their potential impact on language development, academic performance, and social skills.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in performing hearing and vision screening tests.<br>• Practice conducting hearing and vision screening tests (audiometry, Snellen's Chart, Ishihara Chart, Stereoacuity test) on children under teacher supervision.<br>• Analyze the results to identify normal and abnormal hearing or vision development.<br>• Identify any challenges encountered and seek clarification. |

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| | | The teacher will summarize the session.(Duration-1hr) |
| Practical Training 3.10 | Samskaras- Part I | Demonstration<br>Teacher shall demonstrate designing a "Samskara" card, depicting the age, material required, importance, benefits, and contraindications of 'Samskaras' . Students shall observe and prepare samskara Cards under the guidance of the teacher. They shall also prepare protocol for implementation of these samskaras in community settings. (Duration-2hrs) |
| Practical Training 3.11 | Samskara- Part II | Demonstration<br>The teacher will demonstrate the step-by-step process of assessing 'Samvardhana' by applying Samskaras in clinical practice. This will include the evaluation of key Samskaras such as Karnavedhana, Aksharlekhana, Upanayana, Vedarambha, Samavartana, explaining their role in promoting healthy growth and development. The teacher will emphasize the scientific and clinical relevance of these Samskaras in pediatric care.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in assessing 'Samvardhana' through Samskaras.<br>• Practice applying and documenting Samskaras in pediatric assessments under teacher supervision.<br>• Analyze the impact of Samskaras on growth and development by correlating findings with clinical observations.<br>• Identify any challenges encountered and seek clarification.<br>The teacher will summarize the session, provide feedback, and address any questions. (Duration-2 hrs) |
| Practical Training 3.12 | Psychological Assessment and *Manas Prakriti* Evaluation in Children | Demonstration<br>The teacher will demonstrate the step-by-step process of using age-appropriate psychological assessment tools to evaluate psychological issues in children, incorporating *Manas Prakriti* analysis. This will include assessments such as cognitive and intellectual abilities in children, including calculating IQ and identifying deviations from normal psychological development.The teacher will also explain the significance of *Manas Prakriti* in pediatric psychological assessment and management.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in conducting psychological assessments using standardized tools.<br>• Practice applying psychological assessment tools and *Manas Prakriti* evaluation under teacher supervision. |

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| | | • Interpret findings to identify psychological patterns, behavioral issues, and emotional well-being in children.<br>• Identify any challenges encountered and seek clarification.<br><br>The teacher will summarize the session, provide feedback, and address any questions. (Duration-2 hrs) |
| **Experiential learning Activity** | | |
| **Experiential learning No** | **Name** | **Activity details** |
| Experiential-Learning 3.1 | Assessment of 'Samvardhana' Growth and Development | Students shall assess growth (height, weight, head circumference, chest circumference) and development (motor, cognitive, language, and social skills) in minimum of three children and document their observations and interpretations in a logbook. (Duration - 1 hr)<br>Students shall survey the influence of Aahar (diet) and Vihara (lifestyle) on Samvardhana (growth and development)by collecting data from at least 10 children within a chosen age group (infants, toddlers, school-going children, or adolescents). They will analyze both general and Dosha-specific findings and document them in their logbooks. (Duration - 1 hr) |
| Experiential-Learning 3.2 | Anatomical and Physiological variations of growth in children. | Student shall assess children in clinical settings. Reflect on the influence of anatomical and physiological growth variations in clinical practice, communication and outcomes. They would discuss the challenges due to anatomical and physiological growth variations with teacher and take appropriate age specific measures while assessing growth in children. Each student would document the influence of anatomical and physiological growth variations in clinical practice, communication and outcomes observed in minimum of three children in logbook.(Duration- 2 hrs) |
| Experiential-Learning 3.3 | Anthropometric Assessments | Each student shall conduct anthropometric assessments in clinical settings (Hospital/Health check-up Camps) for minimum 10 children, measuring key parameters such as height, weight, head circumference, and body proportions. Each student shall systematically assess a specific age group (infants, toddlers, school-going children, or adolescents) and collect relevant data . They shall analyze the anthropometric measurements, interpret the results (general and dosha specific), compare them with growth standards, discuss any variations or deviations, and document their findings in their logbooks. (Duration- 2 hrs) |
| Experiential-Learning 3.4 | Fenton Growth Chart and its plotting. | Students will visit the nearby tertiary care hospital and collect data on growth pattern of minimum 10 preterm infants, evaluating fenton growth charts retrospectively. They will analyse and document their findings, reflect on the experience, share with peers and teacher for feedback.(Duration- 3 hrs) |

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| | | OR<br>Teacher will divide students into pairs and provide each pair with simulated Fenton Growth Chart data for minimum of ten preterm infants with varied growth patterns (e.g., normal, stunted, wasting, etc.), for identifying growth patterns and potential concerns. Teacher will facilitate discussion to compare interpretations and address challenges. They will document their findings, and reflect on the analysis.(Duration- 3 hrs) |
| Experiential-Learning 3.5 | Growth Assessment with IAP & WHO Charts and Prakriti Analysis | Students will assess children, plot their growth parameters on IAP or WHO growth charts, and interpret the findings, incorporating Prakriti analysis, to identify deviations in growth patterns, documenting minimum of two observations in the logbook.(Duration- 1 hr) |
| Experiential-Learning 3.6 | Assessment of Dental Development and Age | Students will participate in small community-based projects, assessing dental development and estimating age in atleast 10 children through clinical evaluation, or visit dental clinics to retrospectively collect data from at least 10 relevant cases. Students will document their observations, and results, present their findings in class. Teacher and peers will provide feedback. Students will reflect on their experience in their logbooks.(Duration- 1 hr) |
| Experiential-Learning 3.7 | SMR Assessment and Parental Counseling | Each student will develop an educational tool (leaflet, poster, or digital content) and use it to educate at least two parents about the importance of SMR assessment in identifying pubertal disorders early. The session will cover SMR stages and their significance. The teacher will provide feedback, and students will document their experiences in their logbooks.(Duration- 1 hr)<br>OR<br>Students shall conduct a survey in community settings and identify the potential causes (both dosha-specific and contemporary) for precocious and delayed puberty in children and adolescents. They shall document their observations (general and dosha specific), analyse it and interpret the results.(Duration- 1 hr) |
| Experiential-Learning 3.8 | Hearing and Vision Screening Test | Students will conduct hearing and vision tests in at least five children and document their findings in the logbook.(Duration- 2 hrs)<br>OR<br>Students shall participate in community-based projects, such as assessing hearing and vision in children with Autism Spectrum Disorder (ASD), or visit audiometry labs to retrospectively collect data from at least 10 relevant cases. They will document their findings, observations, and results in their logbooks.(Duration- 2 hrs) |
| Experiential- | Behavioural Screening | Students will screen children for altered behaviour( hyperactivity, impulsivity, social problems, conduct problems, repetitive |

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| Learning 3.9 | Tests | behaviours, attention issues, oppositional behaviour) applying Behavioural Screening test.They will analyze findings and explain the child's condition to parents/caregivers. Students will document a minimum of three such cases in their logbook. (Duration-3 hrs)<br>OR<br>Teacher will provide a case vignette to each student for presentation, analyzing the case with reasons. Teacher shall facilitate discussion. Students shall document their learnings in logbook.(Duration-3 hrs) |
| Experiential-Learning 3.10 | Samskara- Part III | Students will develop a growth and development assessment protocol based on Samskara. Teacher will facilitate a discussion and assist in designing the protocol, which can be shared with parents to monitor their child's growth and development. (Duration-2 hr)<br>OR<br>Students will develop one educational tool—such as a leaflet, poster, or digital content—and participate in a minimum of two sessions to raise awareness about the role of different Samskaras (Jatakarma, Namakaran, Nishkramana, Anna Prashana Samsakara) in promoting healthy growth and development in children. They will document their experiences and reflections, including feedback from session participants. (Duration- 2 hr) |
| Experiential-Learning 3.11 | Samskara- Part IV | Students will create an educational tool (leaflet, poster, or digital content) and conduct at least one session on the role of Samskaras (Karnavedhana Samskara, Aksharlekhana Samskara, Vedarambha Samskara, Upanayana Samskara, ) in child development. They will document their experiences, reflections, and participant feedback. (Duration- 1 hr)<br>Student shall discuss with teacher and design SOP of different samskara to be practiced for healthy growth and development of children. (Duration- 1 hr) |
| Experiential-Learning 3.12 | Psychological Screening & Manas Prakriti Assessment | Students will screen children for psychological issues during school health camps, assessing conditions such as temper tantrums, phobias, anxiety, sleep disturbances, conduct disorders, and socio-behavioral issues using appropriate psychological tools and Manas Prakriti assessment. They will explain the findings to parents/caregivers and document at least two cases in their logbooks. (Duration-3 hrs)<br>OR<br>Teacher will provide a case vignette to each student for presentation. Students will analyse and present the given case vignette. Teacher shall facilitate discussion. Students shall document their learnings in logbook. (Duration-3 hrs) |
| Experiential-Learning 3.13 | Satwavajaya Chikitsa | Students will create an educational tool (leaflet, poster, or digital content) to counsel parents on Satwavajaya Chikitsa for improving memory, concentration, and behavior. Students will document key points from counseling session, compare |

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| | | Satwavajaya Chikitsa with recent psychiatric advancements, and include parent feedback in their logbook.(Duration - 1 hrs)<br>Students will design SOP for implementation of Satwavajaya Chikitsa in pediatric practice. Teacher will facilitate discussion and assist in framing the protocol. (Duration - 1 hrs) |

| **Modular Assessment** | |
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| **Assessment method** | **Hour** |
| Instructions - Conduct a structured Modular assessment. Assessment will be for 50 marks. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.<br>SAQs and LAQs<br>6 SAQs, each from different unit. (5 marks each)<br>2 LAQs, (10 marks each)<br>OR<br>Any practical in converted form can be taken for assessment.(25 Marks)<br>AND<br>Any of the experiential as portfolio/ refelections / presentations can be taken as assessment.( 25 Marks) | 4 |

**Module 4** : Shishu evam Bala poshana and Vyadhi Kshamatwa (Child nutrition and Immunity)

**Module Learning Objectives**
**(At the end of the module, the students should be able to)**

1. Analyze the relationship between nutrition and ‘Samvardhana’ in children.
2. Design nutritional plans for various ages and health conditions.
3. Integrate recent advances in Poshana and Vyadhikshamatva.
4. Reflect on clinical experiences in planning nutrition and immunity measures.

**Unit 1 Shishu Poshana**

- Stana and Stanya Vijnan
- Matru- Dhatri -dugdha
- Lehana
- Feeding (Preterm, Low birth weight, Extremely low birthweight, Sick neonates)
- Alternative feeding
- Daily fluid, caloric requirement
- Feed fortification
- Breast Milk Banking
- Stanyashodhana and Stanyajajana yoga
- Stanyapanayana- Weaning / Complementary feeding

**References:** 4,7,26,35,43,45,47,49,58,76,78

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO8 | Analyze Matru Dugdha and Dhatri Dugdha in infant nutrition, emphasizing Stanyajanana and Stanyashodhana aushadhi. | 2 | Lecture | CAN | Knows-how | FC,L&GD,L&PPT |

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| CO1,CO8 | Analyze the safety, efficacy, and cultural relevance of Lehana and Stanyapnayana in complementary feeding. | 2 | Lecture | CAN | Knows-how | L&GD,L&PPT |
| CO1,CO3,CO6 | Demonstrate proficiency in breastfeeding techniques and challenges for full-term, preterm, LBW, ELBW, and sick neonates. | 3 | Practical Training 4.1 | PSY-GUD | Shows-how | CBL,D,SIM |
| CO1,CO6 | Demonstrate alternative feeding techniques and safe complementary feeding and weaning practices. | 2 | Practical Training 4.2 | PSY-GUD | Shows-how | D,KL,PBL,SIM |
| CO1,CO6 | Educate lactating mothers and address common challenges in breastfeeding. (physiological, pathological and emotional aspects) | 3 | Experiential-Learning 4.1 | AFT-VAL | Does | CBL,PBL,RLE,SDL |
| CO1,CO6,CO8 | Educate parents on alternative feeding, complementary feeding and weaning practices. | 3 | Experiential-Learning 4.2 | AFT-VAL | Shows-how | PrBL,RLE,SDL |
| CO2,CO5,CO6 | Demonstrate the administration of fluid therapy for preterm, LBW, ELBW, and sick neonates. | 2 | Practical Training 4.3 | PSY-GUD | Shows-how | D,KL,SIM |
| CO1,CO6 | Demonstrate the selection and administration of Stanyajanana, Stanyashodhana yoga to improve lactation. | 1 | Practical Training 4.4 | PSY-GUD | Shows-how | D,PBL,SIM |
| CO1,CO8 | Evaluate the importance of breast milk banking and fortification in neonatal care. | 3 | Experiential-Learning 4.3 | CAN | Shows-how | FV,RLE,SDL,TBL,W |
| **Unit 2 Bala Poshana** | | | | | | |

- Pathyahara for infants and children.
- Feeding guidelines and Practices, Resources
- Vaya anusara Poshana-Nutritional requirements
- Nutritional Assessment
- Counselling of parents and community.

**References:** 4,29,43,45,46

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO3,CO6,CO8 | Analyze Aharakrama(complementary) for infants and feeding guidelines in children. | 1 | Lecture | CAN | Knows-how | FC,L&GD,L&PPT |
| CO1,CO3,CO8 | Explain Vayanusara Poshana (nutritional requirements) and its impact on ‘Samvardhana’ (Growth and development). | 2 | Lecture | CAN | Knows-how | FC,L&GD,PBL |
| CO1,CO3,CO6 | Demonstrate the formulation of Vayanusara Poshana by assessing prakriti, calculating caloric needs, and ensuring proper nutrition. | 2 | Practical Training 4.5 | PSY-GUD | Shows-how | CBL,D,PBL,SIM |
| CO1,CO3,CO6,CO8 | Demonstrate the use of tools for assessing Kuposhana (Malnutrition). | 3 | Practical Training 4.6 | PSY-GUD | Shows-how | D,KL,SIM |
| CO1,CO3,CO6 | Demonstrate the preparation of a diet plan based on Pathyahara principles, nutritional needs, and palatability. | 2 | Practical Training 4.7 | CS | Shows-how | BL,CBL,D |
| CO1,CO3,CO6 | Evaluate the effectiveness of diet plan based on principles of Pathyahara, nutritional needs and palatibility. | 2 | Experiential-Learning 4.4 | CE | Shows-how | CBL,PBL,RLE |

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|---|---|---|---|---|---|---|
| CO1,CO3,CO6,CO8 | Evaluate impact of Vayanusara Poshana on 'Samvardhana' (Child growth and development) and communicate its significance to parents. | 2 | Experiential-Learning 4.5 | CE | Shows-how | CBL,RLE,TPW |
| CO1,CO3,CO6 | Evaluate and communicate the influence of regional, community and familial feeding practices on child's nutritional status and overall development. | 2 | Experiential-Learning 4.6 | AFT-VAL | Does | RLE,SDL,TBL |
| CO1,CO3,CO6 | Evaluate and address impact of various cultural and ethical issues of child nutrition. | 3 | Experiential-Learning 4.7 | AFT-VAL | Shows-how | IBL,RLE,SDL |

**Unit 3 Vyadhikshamatva (Immunity) - I**

- Vyadhikshamatva
- Classification
- Immune response
- Types of Immunity
- Immuno-deficiency Diseases
- Immunopharmacology

**References:** 3,4,5,26,35,43,44,76,78,81

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO3,CO6,CO8 | Analyse the role of Vyadhikshmatva(Immunity) in restoring pediatric health. | 2 | Lecture | CAN | Knows-how | BL,FC,L&GD |
| CO3,CO6,CO8 | Analyze Vyadhikshmatva Vardhanopaya (Immunomodulatory Techniques) and their significance in child care. | 1 | Lecture | CAN | Knows-how | BL,FC,L&GD |
| CO3,CO6,CO8 | Demonstrate a responsible approach in selecting and administering immuno-pharmacological interventions. | 5 | Experiential-Learning 4.8 | PSY-MEC | Shows-how | CBL,RLE,SDL |

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| CO3,CO6 | Assess immunodeficiency conditions and counsel parents regarding child's condition. | 2 | Experiential-Learning 4.9 | AFT-VAL | Does | PBL,RLE |
| CO1,CO3,CO6,CO8 | Demonstrate selection of specific immunopharmacological interventions to enhance Vyadhikshamatva (Immunity) in children. | 3 | Practical Training 4.8 | PSY-GUD | Shows-how | D,JC |

**Unit 4 Vyadhikshamatva Vardhanopaya (Immune enhancing methods)**

- Immune enhancing methods – Bala Rasayana,
- Medhya Rasayana,
- Poorva Abhisamskara,
- Swarna Prashana
- Prakaradi Yogas
- Single drugs
- Non dietic methods

**References:** 3,14,26,43,47,49,57,76,78,81

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO3,CO6,CO8 | Analyze and apply the concept of Bala Rasayana to mitigate pediatric morbidity and reduce mortality. | 1 | Lecture | CAN | Knows-how | BL,FC,L&GD |
| CO1,CO3,CO6,CO8 | Analyze the role of Medhya Rasayana in enhancing cognitive functions and preventing Prajnyaparadha Janya Roga in children. | 1 | Lecture | CAN | Knows-how | FC,L,L&GD |
| CO1,CO3,CO6 | Analyze the role of Poorva-Abhisamskara in the prevention of childhood autoimmune, | 1 | Lecture | CAN | Knows- | BS,FC,L |

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| ,CO8 | allergic, and hypersensitivity disorders. | | | | how | &GD |
| CO1,CO6,CO8 | Develop protocols for implementing Bala Rasayana Therapy.<br>( Medhya Rasayana, Eka Moolika Prayoga, Prakaradi yoga, Non-dietary methods). | 4 | Practical Training 4.9 | CS | Shows-how | D,PL |
| CO1,CO6,CO8 | Demonstrate the preparation and administration process of Swarna prashana. | 2 | Practical Training 4.10 | PSY-GUD | Shows-how | D,KL |
| CO2,CO3,CO6 ,CO8 | Evaluate, justify and communicate Bala Rasayana implementation based on Vaya, Prakriti, Vyadhi and Agni of child.<br>(Poorva-abhisamskara, Medhya Rasayana, Eka Moolika Prayoga, Prakaradi Yoga,Non-dietary methods, Pranayama, Yoga, Aachaar rasayana). | 3 | Experiential-Learning 4.10 | AFT-VAL | Does | FV,RLE,SDL |
| CO1,CO3,CO6 ,CO8 | Counsel parents, caregivers, and the community on the benefits of Swarnaprashana for child health. | 4 | Experiential-Learning 4.11 | AFT-VAL | Does | FV,RLE, TPW |

**Unit 5 Vaccination**

- Schedule
- IMI-Intensive Mission Indra dhanush
- Type of Vaccines
- Route of administration, dose, contraindications and adverse effects
- Immunoglobulins, Anti-sera
- Vaccine storage and Transport
- Vaccine vial Monitor
- AEFI reporting

**References:** 4,5,45,58,81

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO2,CO3,CO8 | Analyze the impact of immunization programs on child morbidity and mortality, focusing on special populations.(preterm, LBW,VLBW, immuno-compromised, disease specific) and newer vaccines. | 1 | Lecture | CAN | Knows-how | FC,IBL,L&GD |
| CO2,CO3,CO8 | Analyze the role of non-vaccine immunization in pediatric disorders. (eg., immunoglobulins, antisera) | 1 | Lecture | CAN | Knows-how | BS,L&GD,L&PPT |
| CO2,CO5,CO6,CO8 | Demonstrate proficiency in vaccine handling, administration, and disposal as per regulatory standards. | 4 | Practical Training 4.11 | PSY-ADT | Shows-how | D,IBL,KL |
| CO1,CO6,CO8 | Demonstrate implementation of community level Immunization Programmes. (Mission Indradhanush, Vaccination for travellers, vaccination in endemic areas). | 2 | Practical Training 4.12 | PSY-GUD | Shows-how | RP,SIM,TBL |
| CO1,CO2,CO5,CO6,CO8 | Evaluate vaccine storage, scheduling, administration, contraindications, and adverse effects for safe immunization. | 4 | Experiential-Learning 4.12 | CE | Does | CBL,FV,RLE |
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| CO1,CO2,CO5,CO6,CO8 | Evaluate and communicate the significance of, safe vaccination and AEFI monitoring. | 3 | Experiential-Learning 4.13 | AFT-VAL | Does | FV,RLE,SDL |

**Practical Training Activity**

| Practical No | Name | Activity details |
|---|---|---|
| Practical Training 4.1 | Breastfeeding Techniques and Challenges in Neonates | Demonstration<br>The teacher will demonstrate procedures for identifying neonate hunger cues, feeding schedules, and challenges. Students will observe, assist, and discuss difficulties like latching and weak sucking reflexes in preterm, LBW, ELBW, and sick neonates under the teacher's guidance. (Duration -3 hrs)<br>OR<br>Case Based Learning (CBL)<br>Teacher will present case vignettes/scenarios involving breastfeeding challenges and maternal conditions affecting breastfeeding. Students will analyze the cases, identify issues, and work in groups to develop solutions. They will practice counseling lactating mothers on addressing these challenges under the teacher's guidance.(Duration -3 hrs) |
| Practical Training 4.2 | Feeding Techniques and Weaning Practices | Demonstration<br>The teacher will demonstrate the step-by-step process of alternative feeding techniques (e.g., Paladai, Katori-spoon, syringing) in neonate/manekin, covering essential steps such as hygiene, milk preparation, positioning, feeding, and monitoring. The session will also include an explanation of complementary feeding and weaning practices with practical examples. The teacher will emphasize the importance of proper technique, hygiene, and monitoring for safe and effective feeding.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration, noting key techniques and hygiene practices.<br>• Practice alternative feeding techniques on dummies or models under teacher supervision.<br>• Apply the learned techniques by feeding neonates in the ward under guidance.<br>• Monitor the neonates' responses and identify any feeding-related challenges.<br>The teacher will summarize the session. (Duration- 2 hrs) |
| Practical | Fluid Therapy | Demonstration |

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| Training 4.3 | Management in Neonates | The teacher will demonstrate the step-by-step process of fluid therapy in neonates, focusing on preterm, LBW, ELBW, and critically ill neonates. The session will cover indications, goals, and principles of fluid therapy, followed by a live demonstration of fluid preparation, administration techniques, and monitoring parameters. The teacher will emphasize the importance of preventing complications such as electrolyte imbalances and their management.<br>Following the demonstration, students will:<br><br>• Observe the teacher's demonstration and assist in fluid preparation and administration.<br>• Practice fluid calculations and simulate fluid preparation under teacher supervision.<br>• Monitor key parameters and analyze case-based scenarios to identify fluid-related complications.<br>• Identify challenges encountered during fluid therapy and seek clarification.<br><br>Teacher will summarise the session.(Duration- 2 hrs) |
| Practical Training 4.4 | Stanyajanana and Stanyashodhana for Lactation | Demonstration<br>The teacher will demonstrate the step-by-step process of identifying the appropriate use of Stanyajanana and Stanyashodhana yogas in managing lactation issues. Through patient case studies on conditions like insufficient lactation and poor milk quality, the teacher will emphasize the importance of clinical assessment, including patient history, clinical findings, and Prakriti analysis, to determine suitable interventions.<br>Following the demonstration, students will:<br><br>• Observe the teacher's demonstration and assist in assessing lactation issues in patients.<br>• Practice to select appropriate Stanyajanana and Stanyashodhana yogas under teacher supervision.<br>• Identify challenges encountered in assessment and seek clarification.<br><br>The teacher will summarize the session. (Duration- 1hr) |
| Practical Training 4.5 | Vayanusar Poshana(Age and Prakriti-Specific Diet Planning) | Case Based Learning<br>The teacher will present age-specific case scenarios (e.g., an infant, school-aged child, and adolescent) with details on growth milestones, dietary preferences, and health conditions. Students will assess nutritional needs based on age, weight, prakriti and activity level, calculate caloric requirements using standard formulae (e.g., WHO/ICMR guidelines, RDA), and collaboratively formulate appropriate diet plans under teacher's guidance. (Duration-2hrs) |

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| Practical Training 4.6 | Tools for Assessing Kuposhana (Malnutrition) | Demonstration<br>The teacher will demonstrate the use of child-specific malnutrition screening tools:<br>• WHO SAM Classification: Identifying Severe Acute Malnutrition (SAM) based on weight-for-height Z-scores and MUAC <115 mm.<br>• ICDS Growth Monitoring: Interpreting growth charts commonly used in community settings.<br>• BMI Assessment: Measuring Body Mass Index (BMI) and comparing it to age-specific percentiles.<br>Students will apply these tools to screen for Kuposhana (Malnutrition) and co-relate it with Dosha analysis in simulated or real-life scenarios under guidance. (Duration-3 hrs) |
| Practical Training 4.7 | Pathyahara-Based Diet Preparation | Demonstration<br>The teacher will demonstrate preparation of a diet plan, emphasizing the application of Pathyahara principles (e.g., avoidance of Viruddha Ahara, Prakriti Anusara Ahara), ensuring balanced nutrients, and accommodating taste preferences. Tools such as dietary charts, nutritional reference guides, and patient history forms will be discussed. Students will observe, assist the teacher, and practice preparing a diet plan for a given patient scenario. (Duration- 1 hr)<br>Case Based Learning<br>The teacher will present a patient scenario with the history, dietary challenges, and health goals. Students, under the teacher's supervision, analyze and discuss the case to develop a diet plan that meets nutritional needs while considering palatability. (Duration- 1 hr) |
| Practical Training 4.8 | Immunopharmacological Interventions for Childhood Vyadhikshamatva (Immunity) | Journal Club<br>Assign each student, one recent research article on topics like immunomodulatory effects of Ayurvedic herbs or advancements in pediatric immunotherapy. Ask students to critically review the articles in 10 min presentation followed by 10 min of discussion, focusing on research methodology, results and clinical implications. Strengths, limitations and scope for future research. Encourage interdisciplinary perspectives during discussions. (Duration- 2 hr)<br>Demonstration<br>Students will be guided by teacher through a case-based clinical scenario where they will assess pediatric patients for immune status using history-taking, Prakriti analysis, and identifying signs of immunodeficiency or recurrent infections. The teacher will demonstrate the selection process of appropriate immunomodulators (e.g., Swarnaprashana, Guduchi, Chyawanprash, |

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| | | Arvindasava) based on Dosha involvement and clinical presentation. Under supervision, students will practice selecting appropriate interventions, justifying their choices based on Ayurvedic and contemporary immunopharmacological principles. (Duration- 1 hr) |
| Practical Training 4.9 | Bala Rasayana Therapy. | Demonstration<br>Teacher will demonstrate preparation and usage of Medhya Rasayana, Eka Moolika and Prakaradi Yoga, emphasizing on standardization, dosage and safety. Students will observe and practice. Teacher will also lead session on specific Pranayama and Yoga practices relevant for pediatric health. Students will observe, assist and practice in clinical settings. (Duration-3 hrs)<br>Protocol Development<br>Teacher will demonstrate drafting a step-by-step protocol for preparation, administration and follow-up for various Rasayana Methods. Students will observe, assist and later work in pairs to prepare a similar protocol. Peers will review followed by feedback from teacher. (Duration- 1 hr) |
| Practical Training 4.10 | Swarna Prashana - Preparation and Administration. | Demonstration<br>The teacher will demonstrate the safe and ethical preparation and administration of Swarna Prashana, highlighting its scientific benefits for nourishment, immunity, and disease prevention. Students will observe the procedure, assist in its preparation, and practice administering it to a child under supervision to ensure skill acquisition and adherence to safety standards.(Duration-2hrs) |
| Practical Training 4.11 | Vaccine Management Skills | Demonstration<br>The teacher will demonstrate the step-by-step process of handling (WHO/UNICEF guidelines), administering, and disposing of vaccines while adhering to regulatory standards. This will include proper vaccine storage (cold chain management), preparation, correct administration techniques (IM, SC, ID, and oral routes), disposal of vials and syringes following biomedical waste guidelines, and documentation. The teacher will emphasize safety protocols, adverse event management, and ethical considerations in vaccination.<br>Following the demonstration, students will:<br>• Observe the teacher’s demonstration and assist in vaccine handling, administration, and disposal.<br>• Practice vaccine administration techniques under teacher supervision.<br>• Apply biomedical waste disposal protocols correctly.<br>• Identify challenges in vaccine handling and administration and seek clarification. |

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| | | The teacher will summarize the session and provide feedback.(Duration-4hrs) |
| Practical Training 4.12 | Immunization Programmes at Community Level | Role-Play<br>Teacher shall assign characters to students (Doctor, parent, support staff) and set up scenarios (10-15 mins each scenes) followed by 15 min of feedback session for each scenario played:<br>• Scenario 1- Mission Indradhanush in a rural setting. (Doctor explaining the importance of child vaccination and address vaccine hesitancy)<br>• Scenario 2- Counseling a traveler parent about vaccination requirements for kid. (Counsel about vaccine requirements for specific destinations)<br>• Scenario 3- Conducting a vaccination drive in an endemic area. (Parents express their fears and doctor tries to dispel myths)<br>• Scenario 4- Addressing vaccine related issues of parents in clinical setting.<br>Peers and teachers give feedback, highlighting strategies to face challenges.(Duration-2hrs) |
| **Experiential learning Activity** | | |
| **Experiential learning No** | **Name** | **Activity details** |
| Experiential-Learning 4.1 | Counseling lactating mothers on Breastfeeding Challenges | Student will conduct individual (minimum 3) or group (minimum 2) counseling sessions for educating lactating mothers, focusing on practical solutions. Students would address common phsiological (incorrect latch or positioning, engorgement, flat/inverted nipples), pathological (mastitis, cracked/sore nipples) and emotional challenges (post-partum depression or anxiety, stress, societal/family pressure)related to breastfeeding. Students will collect feedback from the session participants. Student will document their experience and feedback from participants in their logbook. (Duration -2 hrs)<br>Students shall prepare and distribute any one of the following informational resources—such as a leaflet, poster, or digital content on breast feeding techniques, diet and emotional well-being. They shall document their learnings and feedback from at least two parent in their logbook. (Duration- 1 hour) |
| Experiential-Learning 4.2 | Alternative feeding, complementary feeding and Weaning Practices. | Each student will provide feeding log template to minimum 3 parents to record their child's feeding schedule, types of food and portion sizes. Later, they would analyze the data (General and dosha specific) and present the findings. Teacher will facilitate discussion and students will document their learnings in logbook. (Duration-2 hrs) |

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| | | Students will conduct either individual (minimum 3 parents) or one group counseling sessions for parents, educating them on alternative feeding options, Stanyapanayana Techniques (Complementary feeding )and weaning practices. They will document the keypoints of the session in their logbook.(Duration-1 hr) |
| Experiential-Learning 4.3 | Breast Milk Banking and Fortification in Neonatal Care. | Students will visit a breast milk bank to understand its functioning, including donor milk collection, processing, storage and distribution. They will observe the fortification process for breast milk in neonatal intensive care units (NICUs) and document their experience in their logbook. (Duration- 3 hrs) |
| Experiential-Learning 4.4 | Diet Plans: Pathyahara, Nutrition & Palatability | Students will assess the Ahara of atleast 5 children from different age-groups, focusing on Pathyahara and Palatibility, Quality, Quantity, Frequency and Technique. They will analyze the impact of these practices on 'Samvardhana' of children and present their observation. Teacher will facilitate discussion and students will document their learnings in logbook. (Duration- 2 hrs) |
| Experiential-Learning 4.5 | Significance of Vayanusara Poshana in 'Samvardhana' | Each student will create a Vayanusara Poshana plan tailored to two children of any specific age group (e.g., infants, toddlers, school-aged children, or adolescents) using regionally available food options. They will share this plan with children's parents, provide detailed guidance on its implementation, and monitor the child's growth & development during follow-up visits. Students will document the entire process, including feedback from parents, observations, and outcomes, in their logbooks.(Duration -2 hr)<br>OR<br>Each student will ask a minimum of four parents to maintain a 7-day dietary log of their child. The student will then analyze the logs for compliance with Vayanusara Poshana principles. Based on their findings, the student will prepare a leaflet, poster, or digital content to educate parents on the importance of Vayanusara Poshana and how to align their child’s diet with these principles. (Duration- 2 hrs) |
| Experiential-Learning 4.6 | Impact of Feeding Practices on Child Nutrition | Each Student will interview minimum of three parents from diverse regions,religion/community and document their child feeding practices, food preferences, challenges and generation-wise shift in family food habits. They will analyse their findings (general and dosha specific) and educate parents on significance of feeding practices and nutrition. They will present their findings in class. Teacher will facilitate discussion and stussents will document their learnings in logbook. (Duration- 2 hrs) |
| Experiential-Learning 4.7 | Cultural and Ethical issues in Child Nutrition | Each student will design personalized nutrition plans for minimum three children considering their regional and cultural background, dietary preferences and ethical beliefs. They will document the plans and the experience in their logbook.(Duration-2hrs)<br>Students will document minimum of 3 cases in their logbook, analyzing parents perceptions on home food preparations, nutritional value, seasonal availability, food taboos, dietary restrictions (vegetarian/vegan) and food choices (picky eater/junk food/bakery products) of children alongwith its impact on child's nutrition and care. (Duration-1 hr) |

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| Experiential-Learning 4.8 | Assess and Counsel on Immunodeficiency Conditions | Students will conduct age-specific examinations of lymph nodes, spleen, skin lesions, and growth patterns in at least five immunocompromised children, comparing them with healthy children of the same age. They will counsel parents using the SPIKES (Setting, Perception, Invitation, Knowledge, Emotions, Strategy and Summary) model. The teacher will facilitate a discussion, and students will document their experience in the logbook. (Duration-2hrs) |
| Experiential-Learning 4.9 | Immuno-Pharmacological Intervention | Each Student will develop atleast one appropriate Rasayana Protocol (Rasayana and Achar Rasayana) specific to immune condition of child. They will educate the parents/caregivers on the importance of specific diet and regimen to improve the immunity of the child. They will document their experience and challenges faced in convincing parents, in their logbook. (Duration- 3 hrs)<br>Each student will review one case of immune-related conditions like autoimmune disorders, immunodeficiency and hypersensitivity reactions and identify appropriate pharmacological interventions (immunoglobulins, corticosteroids, immunosuppressants or biologics). Teacher will facilitate discussion . Students will document their observations in logbook. (Duration- 2hrs) |
| Experiential-Learning 4.10 | Bala Rasayana | Ecah student will develop any one educational tool like leaflet, poster or digital content, focusing on importance of Bala Rasayana (Poorva-abhisamskara, Medhya Rasayana, Eka Moolika Prayoga, Prakaradi Yoga,Non-dietary methods, Pranayama, Yoga, Aachaar rasayana) and its implementation based on Desha, Kala/Vaya, Agni, Matra and Prakriti of child. They will use it to educate either minimum of five parents or two groups of parents and document it in logbook. (Duration- 3 hr) |
| Experiential-Learning 4.11 | Swarna Prashana Benefits Counselling | Each student will counsel parents either individually (minimum 5) or in groups(minimum 2 groups), explaining the significance, appropriate timing, dosage and precautions of swarnaprashana. They will document their experience and feedback from parents in the logbook. (Duration-1 hr)<br>Students will actively participate in health check-up camps (minimum 1), design any one of these informational resources brochure, poster or digital content and educate parents on benefits, dosages and precautions of swarnaprashana. They will document their experience in logbook. (Duration-2 hrs)<br>Students will collectively design a questionnaire (online/offline) to collect feedback from parents. Each student will collect feedback from minimum 10 parents, regarding their understanding and willingness to adopt Swarnaprashana practices. Data will be analysed and teacher will facilitate discussion. (Duration- 1hr) |
| Experiential-Learning 4.12 | Key Aspects of Safe Immunization | Each student will actively administer minimum of two vaccines each via Intradermal, Intramuscular, Subcutaneous and Oral-Nasal routes adhering to standard guidelines(IAP/WHO), and monitor for any immediate adverse reactions. They will document their observations in the logbook and follow up on the vaccinated cases during subsequent visits. (Duration- 2 hrs) |

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| | | Students will visit and document cold chain maintenance in vaccination centres or hospitals. Identify breaches in vaccine storage protocols if any and propose corrective measures. They will prepare a report on the significance of proper storage in vaccine efficacy and document it in their logbook. (Duration- 2 hrs) |
| Experiential-Learning 4.13 | Safe Vaccination and AEFI monitoring | Students will screen children for absolute and relative contraindications before administering vaccines, especially in immunocompromised or high-risk children. Each student will document minimum of two such cases encountered. (Duration- 1 hr)<br>Each student will develop any one educational tool like leaflet, poster or digital content, focusing on safety of vaccines, the importance of monitoring for Adverse Events Following Immunization (AEFI- when and how to seek medical help). They will educate a minimum of five parents and document it in logbook.(Duration- 1 hr)<br>Students will engage in the observation and documentation of atleast 1 AEFI case and other changes encountered during clinical postings. This includes vaccination site, constitutional symptoms, timeline, patient history ,classification of AEFI (eg. Mild, moderate, severe), adherence to standard protocols. (Duration- 1 hr) |

**Modular Assessment**

| **Assessment method** | **Hour** |
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| Instructions - Conduct a structured Modular assessment. Assessment will be for 75 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.<br>Prepare a detailed Diet-Plan for any one of the following age-groups:<br>6 months-2 Years<br>2-6 years<br>7-12 years<br>13-18 years<br>Each diet plan should include:<br>• Daily dietary schedule with quantity (Matra).<br>• Type of food (Ahara) and preparation method (Sanskara).<br>• Use of Rasayana or immunity-boosting components<br>• Seasonal and cultural appropriateness<br>• Justification with rationale<br><br>Assessment Criteria:<br>1. Age-Specific Dietary Detailing (15 marks) | 6 |

- Appropriateness of the diet plan to the selected age group.
- Consideration of physiological needs, digestive capacity (Agni), and milestones.
- Inclusion of meal timings, frequency, and portion size

2. Ahara Principles in Diet Planning (Pathyahara) (15 marks)
- Inclusion of Pathya-Apathya considerations.
- Role of Agni, Bala, Prakriti, and Desha.
- Seasonal (Ritucharya) and daily (Dinacharya) adaptations.
- Use of appropriate textual references where applicable

3. Immunity and Vyadhi Kshamatva Enhancement (10 marks)
- Use of Rasayana in Ahara.
- Foods/herbs/spices promoting Ojas and Bala.
- Prevention of common pediatric illnesses through diet

4. Nutritional Adequacy (10 marks)
- Balanced inclusion of carbohydrates, proteins, fats, vitamins, and minerals.
- Age-appropriate caloric requirement addressed.
- Avoidance of excess/deficiency; modern nutrition insights may be integrated

5. Practicality and Cultural Suitability (10 marks)
- Use of locally available, seasonal foods.
- Culturally accepted food habits and preferences.
- Consideration of socioeconomic background

6. Presentation Format and Clarity (7 marks)
- Structured format (e.g., table/chart/day-wise meal plan).
- Logical flow and readability.
- Visual aids, if used, are clear and relevant

7. Justification and Viva/Write-up (8 marks)
- Sound reasoning for each element of the diet plan.

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| • Integration of dietary principles.<br>• Ability to explain modifications and answer queries confidently<br><br>Total- 75 marks<br>OR<br>Any practical in converted form can be taken for assessment.( 35 marks)<br>AND<br>Any of the experiential as portfolio/ refelections / presentations can be taken as assessment. ( 40 marks) | |

**Module 5** : Bala Panchakarma-I

**Module Learning Objectives**
**(At the end of the module, the students should be able to)**

1. Analyze the clinical application of Panchakarma.
2. Demonstrate proficiency in selecting and customizing Bala Panchakarma.
3. Perform Panchakarma procedures in children with proficiency.
4. Monitor and evaluate outcomes of Bala Panchakarma.
5. Exhibit ethical and cultural sensitivity in Bala Panchakarma.

**Unit 1 Bala Panchakarma Unit-Principles and Practices.**

- Establishment of Balpanchakarma unit
- General Therapeutic principles
- Dietary principles
- Shadupakrama (Snehana, Rukshana, Swedana, Stambhana, Langhana,Brihmana)
- Dhupana Karma (Fumigation procedures)

**References:** 3,26,43,46,49,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO4,CO6 | Develop and demonstrate the constructive blue print of Balpanchakarma unit . | 2 | Practical Training 5.1 | CS | Shows-how | KL,TBL |
| CO4,CO8 | Evaluate and apply procedural knowledge to set up a child-friendly Bala Panchakarma unit. | 2 | Experiential-Learning 5.1 | AFT-VAL | Shows-how | FV,IBL,TBL |
| CO4,CO8 | Analyze child-friendly Panchakarma and Shadupkrama practices for pediatric health. | 2 | Lecture | CAN | Knows-how | FC,L&GD |

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| CO4,CO6 | Demonstrate the planning and implementation of age-appropriate Samsarjana Karma in Panchakarma procedures. | 1 | Practical Training 5.2 | PSY-GUD | Shows-how | CBL |
| CO4,CO6 | Perform and justify Dhoopana karma in neonate and pediatric care. | 2 | Experiential-Learning 5.2 | PSY-GUD | Shows-how | PBL,RLE,TBL |

**Unit 2 Snehana and Rukshana Karma**

- Classification of Snehana
- Bahya Sneha- Types, Methods, Indications, Contraindications, Utility and relevant modification in children
- Preparation of therapy room, medicine, Rogi, Paricharak and Bhishak
- Selection of medication (Abhyanga, Kaya Seka (Pizichhil), Utsadana, Taila)
- Abhyantara Sneha- Types, Methods, Indications, Contraindications, Matra, Utility and relevant modification in procedure as per child. ( Achchha pana, Pravicharana, and Chikitsa)
- Rukshana karma:  Types, Methods, Indications, Contraindications, Utility and relevant modification in children
- Selection of medication (Udwartana, Utsadana, Udgharshana)

**References:** 3,43,49,57,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO4,CO8 | Describe types and methods of Snehana Karma. | 1 | Lecture | CC | Knows-how | FC,L&PPT ,L_VC |
| CO4,CO6 | Demonstrate effective techniques for Bahya Snehana procedures. (Abhyanga, Kayaseka, Mardana, Utsadana, Shirodhara, Shirobasti, Shiro-pichu, Samvahana, Karnapoorana). | 3 | Practical Training 5.3 | PSY-GUD | Shows-how | D,DIS,KL |
| CO4,CO6 | Perform Bahya Snehana Karma and communicate its significance to parents/caregivers. (Abhyanga, Kayaseka, Mardana, Utsadana, Shirodhara, Shirobasti, Shiro-pichu, Samvahana, Karnapoorana). | 4 | Experiential-Learning 5.3 | PSY-MEC | Does | CBL,RLE,SIM |

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| CO4,CO6 | Perform Udwartana and communicate its significance in children to parents/caregivers. | 2 | Experiential-Learning 5.4 | PSY-MEC | Shows-how | D,RLE,SIM |
| CO4,CO8 | Analyze child-specific aspects, prerequisites, indications, contraindications, benefits, and complications of Snehana Karma. | 1 | Lecture | CAN | Knows-how | FC,L&GD,L&PPT |

**Unit 3 Swedana Karma**

- Classification of Swedana
- Preparation of therapy room, medicine, Rogi, Paricharak and Bhishak
- Methods, Indications, contraindications, Utility and modification of Ashtasweda (Hastasweda, Nadi, Pradeha, Prastara Sankara, Upanaha Parisheka, Awagaha) in chil
- Awasthika Sweda: (Hastasweda, Pattasweda, Anguli sweda : Methods, Indications, Contraindications, Application and relevant modification in children)
- Selection of medication: Pinda Sweda: Methods, Indications, Contraindications, Utility and modification in children of Patra Pinda Sweda, Shashtika Shali Pinda Swe Sweda, Churna Pottali Sweda.
- Swedan vyapada and chikitsa

**References:** 3,26,43,49,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO4,CO6 | Describe types and methods of Swedana Karma.<br><br>Analyze child specific, pre-requisites( materials and medications), indications-contraindications, modifications, benefits and complications of Swedana Karma. | 2 | Lecture | CAN | Knows-how | BL,L&PPT ,L_VC |
| CO4,CO6 | Demonstrate Pinda Sweda and communicate its significance to parents/caregivers. (Shashtika Shali Pinda Sweda, Snigdha Patra Pinda Pottali Sweda, Ruksha Patra Pinda Sweda, Valuka Sweda). | 3 | Practical Training 5.4 | PSY-GUD | Shows-how | D,RP,SIM |
| CO4,CO6 | Perform Ashta Sweda and communicate its significance in current scenario of childhood | 3 | Experiential- | PSY- | Shows- | CBL,PL, |

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| | practice. | | Learning 5.5 | MEC | how | RLE |
| CO4,CO6 | Perform Pinda Sweda and communicate its significance to parents/caregivers. (such as shastika shali pinda sweda, patra pottali pinda sweda, valuka sweda ) | 2 | Experiential-Learning 5.6 | AFT-VAL | Shows-how | CBL,PL, RLE |

**Unit 4 Vamana and Virechana Karma**

Vaman Karma

- Classification
- Method and Application
- Indications and contraindications
- Relevant Modifications in children
- Preparation of therapy room, medicine, Rogi, Paricharak and Bhishak
- Selection of Vamana and Vamanopaga Dravya
- Mode of action
- Samyaka Siddhi Lakshana
- Vamana Vyapada and chikitsa
- Sansarjana Krama
- Purva and Pashchat karma

Virechana Karma

- Classification
- Method and Application
- Indications and contraindications
- Relevant Modifications in children
- Preparation of therapy room, medicine, Rogi, Paricharak and Bhishak
- Selection of Virechana and Virechanopag Dravya
- Mode of action
- Samyaka Siddhi Lakshana
- Virechana Vyapada and chikitsa
- Sansarjana krama

- Other Poorva and Pashchat Karma

**References:** 3,26,43,49,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO4,CO6 | Analyze child specific, pre-requisites( materials and medications), indications-contraindications, modifications, benefits and complications of Vamana Karma.<br><br>Analyze child specific, pre-requisites( materials and medications), indications-contraindications, modifications, benefits and complications of Virechana Karma. | 2 | Lecture | CAN | Knows-how | FC,L&GD,L_VC |
| CO4,CO5,CO6 | Demonstrate skills in Vamana Karma. | 4 | Practical Training 5.5 | PSY-GUD | Shows-how | D,KL,SIM |
| CO4,CO6 | Demonstrate skills in Virechana Karma. | 2 | Practical Training 5.6 | PSY-GUD | Shows-how | D,KL,SIM |
| CO4,CO6 | Perform Vamana Karma in children, justify its significance and communicate its importance. | 3 | Experiential-Learning 5.7 | PSY-MEC | Does | CBL,RLE,SIM |
| CO4,CO6 | Plan age-appropriate Samsarjana Krama during Panchakarma, and effectively communicate its significance to parents/caregivers. | 3 | Experiential-Learning 5.8 | CS | Does | CBL,PBL,RLE |

**Unit 5 Basti Karma**

- Classification
- Materials (Age-appropriate instruments and equipment’s and materials)
- Method and Application
- Indications and contraindications

- Relevant Modifications in children
- Preparation of therapy room, medicine, Rogi, Paricharaka and Bhishaka
- Selection of type of Basti and basti Dravya
- Mode of action
- Samyaka Siddhi Lakshana
- Basti Vyapada and chikitsa
- Pariharkala
- other Poorva and pashchat karma
- Anuvasana Basti/Matra Basti
- Niruha Basti- Types,
- Kheer basti/ Stanya Basti
- Chaturbhadra kalpa Basti

**References:** 3,26,43,49,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO4,CO8 | Describe types and methods of Basti Karma.<br><br>Analyze child specific, pre-requisites( materials and medications), indications-contraindications, modifications, benefits, complications and safety measures of Basti Karma. | 2 | Lecture | CAN | Knows-how | FC,L&PPT ,L_VC |
| CO4,CO6 | Demonstrate child friendly protocol for preparation and administration of Basti (Niruha Basti, Anuvasana Basti, Chaturbhadra Kalpa Basti and Matra Basti). | 5 | Practical Training 5.7 | PSY-GUD | Shows-how | D,KL,RP |
| CO4,CO6 | Perform Basti (Niruha, Anuvasana, Chaturbhadra Kalpa, and Matra Basti) in children and communicate benefits to parents/caregivers. | 3 | Experiential-Learning 5.9 | AFT-VAL | Shows-how | RLE,SDL,SIM |
| CO4,CO6 | Perform Gudavarti Prayoga in children and convey its benefits, indications, and safety to parents/caregivers. | 2 | Experiential-Learning 5.10 | AFT-VAL | Shows-how | KL,RLE,SDL,SIM |

| Practical Training Activity | | |
|---|---|---|
| **Practical No** | **Name** | **Activity details** |
| Practical Training 5.1 | Constructive Blue print for Bala Panchakarama Unit | Team Based Learning (Duration-1 hr)<br>Teacher will assign students collective task to create a blueprint for a child-friendly Panchakarma unit. Teacher will provide guidelines to include layout, equipment, child-friendly features, and workflow (Poorva, Pradhana, and Paschat Karma). Students will focus on integration of safety measures, accessibility for children with disabilities, and caregiver accommodations.<br>Demonstration and Peer Feedback (Duration-1hr)<br>Students will present their blueprint using drawings, charts, or models. The teacher will critique and provide constructive feedback. The teacher concludes session with key points and highlighting best practices. |
| Practical Training 5.2 | Samsarjana Karma in Children. | Case Based Learning<br>Teacher will present cases requiring Panchkarma Procedures. Guide students to plan appropriate Samsarjana Karma based on the child's age, dosha imbalance and Agni(Digestion capacity). Include details and demonstrations like preparation and cooking demonstrations at diet progression stages (Peya, Vilepi etc.). Highlight nutritional needs, portion sizes, challenges with palatability and feeding difficulties. (Duration - 1 hr) |
| Practical Training 5.3 | Bahya Snehana | Video Based Learning<br>Teacher will display Videos of each procedure (Abhyanga, Kayaseka, Mardana, Utsadana, Shirodhara, Shirobasti, Shiro-pichu, Samvahana, Karnapoorana). Pause to explain critical steps (precautions during Kayaseka, Karnapoorana) and techniques. Emphasize safety measures (eg., temperature checks for oils, pressure application). Open discussion for clarification. (Duration-1 hr)<br>Demonstration<br>Teacher will demonstrate each procedure(Abhyanga, Kayaseka, Mardana, Utsadana, Shirodhara, Shirobasti, Shiro-pichu, Samvahana, Karnapoorana)- its Poorva, Pradhana and Pashchat karma, while explaining indications, materials used, Position of patient and techniques. Teacher will highlight variations specific to age, dosha predominance and the patient's condition and emphasize dravya selection, pressure application and rhythm of movements for each therapy. Students will practice the procedures on peers or simulated patients under supervision. Teacher will ensure all students perform each therapy. (Duration 2 hrs) |
| Practical Training 5.4 | Pinda Sweda – Shastika Shali Pinda Sweda and Patra Pottali Pinda | Demonstration<br>The teacher will demonstrate the step-by-step process of Poorva, Pradhana, and Pashchat Karma (preparation and administration techniques) of Pinda Sweda, including Shashtika Shali Pinda Sweda, Snigdha Patra Pinda Pottali Sweda, Ruksha Patra Pinda |

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| | Sweda | Sweda, and Valuka Sweda. The demonstration will be conducted using manikins or pediatric patients, with a focus on child-friendly communication, proper positioning, temperature maintenance, and procedural safety. The teacher will also highlight the recognition of Samyak, Atiyoga, and Ayoga signs of Pinda Sweda.<br>Following the demonstration, students will:<br><br>• Observe and take notes on the teacher's demonstration, focusing on preparation, technique, and patient interaction.<br>• Practice the administration of different types of Pinda Sweda using manikins or simulated settings under teacher supervision.<br>• Identify and document signs of Samyak, Atiyoga, and Ayoga responses.<br>• Demonstrate the procedure in turns, ensuring adherence to guidelines and patient comfort.<br><br>Receive real-time feedback from peers and teacher for refinement of skills.(Duration- 2 hrs)<br>Role-Play<br>Teacher presents role-play on counseling parents about the condition of child and necessity for Pinda Sweda. Students will be paired and assigned roles as practitioners, patient and caregivers. They will practice counseling parents and convincing them about safe practice of Pinda Sweda and its significance. (Duration-1 Hr) |
| Practical Training 5.5 | Vamana Karma in Children | Demonstration<br>The teacher will demonstrate the preparation of Vamana Dravya, including selection, dosage adjustment, and administration techniques. The teacher will also emphasize monitoring during the procedure ( ayoga, atiyoga, samyak yoga),observing vital signs and managing Upadrava (potential complications) like palpitations, blood vomiting, stiffness, and exhaustion.<br>Following the demonstration, students will:<br><br>• Observe the teacher's demonstration, noting key steps in preparation, administration, and patient monitoring.<br>• Practice the preparation and administration of Vamana Dravya under supervision on actual clinical cases, ensuring ethical compliance.<br>• Monitor patients during the procedure, documenting vital parameters and identifying signs of complications.<br>• Discuss and implement appropriate management strategies for observed complications.<br><br>Teacher will summarise the session. (Duration 2 hrs) |

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| | | Simulation<br>Teacher will simulate scenarios of child undergoing Vamana Karma. Assign roles of practitioner, patient and observer to students. Include complication management. Emphasize practicing communication skills with children and their parents/caregivers. Also, distraction techniques to make child comfortable. (Duration 1 hr)<br>Video Based Learning<br>Teacher will display videos of Vamana Karma procedures in children. Pause to discuss critical steps, challenges and solutions. Emphasize on safe and child-friendly approaches. (Duration 1 hr) |
| Practical Training 5.6 | Virechana Karma in Pediatric Practice | Demonstration<br>The teacher will demonstrate the preparation of Virechana Dravya, including selection, dosage adjustment, administration techniques, and post-procedural care, with an emphasis on monitoring vital parameters during and after the procedure.<br>Following the demonstration, students will:<br>• Observe the teacher's demonstration, noting key steps in preparation, administration, and post-care.<br>• Practice the preparation of Virechana Dravya, ensuring accurate selection and dosage adjustment.<br>• Simulate the administration process under supervision before performing it in clinical settings.<br>• Monitor vital parameters and document observations post-procedure.<br>• Identify challenges faced and discuss necessary modifications with the teacher.<br>(Duration- 2 hr)<br>OR<br>Video-based Learning<br>Teacher will display videos of Virechana Karma being performed in pediatric settings. Pause at critical steps to discuss challenges and modifications for children. Highlight keypoints such as child-friendly approach and management of ayoga, atiyoga and upadrava (complications). (Duration-2hrs) |
| Practical Training 5.7 | Basti Karma | Demonstration<br>The teacher will demonstrate the administration of Basti using a manikin or pediatric patient, highlighting child-friendly adaptations such as the size of the catheter, appropriate syringes, and distraction techniques. The importance of adhering to Poorva, Pradhana, and Paschat Karma protocols will be emphasized.<br>Following the demonstration, students will: |

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| | | • Observe the teacher's demonstration, noting key steps and adaptations for pediatric patients.<br>• Practice the procedure on a manikin or simulation model under supervision.<br>• Replicate the administration of Basti, ensuring proper technique, hygiene, and patient comfort.<br>• Identify challenges faced during the procedure and seek clarification.<br><br>The teacher will summarize key takeaways and provide feedback on student performance. (Duration- 3 hr)<br>Video-based learning<br>Teacher will use high-quality videos showing child-friendly protocols for Basti-preparation, monitoring (samyak Basti, atiyoga and ayoga) and administration. Pause for discussions and clarifications during the session. (Duration- 1hr)<br>Role-Play<br>Teacher will demonstrate counseling parents and later assign roles to students (practitioner, child and parent). They will practice explaining the procedure to parents and taking informed consent. Simulate the procedure using a manikin for practice. (Duration- 1hr) |
| **Experiential learning Activity** | | |
| **Experiential learning No** | **Name** | **Activity details** |
| Experiential-Learning 5.1 | Setting Up a Child-Friendly Bala Panchakarma Unit | Organize a physical/virtual trip to a established pediatric Panchakarma unit. Scholars can observe the layout, facilities, and operational processes first hand. They will document their experience in the logbook. (Duration- 2hrs)<br>Or<br>Student will participate in a hands-on workshop conducted by teacher where they will work in teams to design a layout for a pediatric Panchakarma unit focusing on - Area ( therapy area, waiting area, resting area), Infrastructure, Equipment, Staff, Child friendly environment, Safety measures & Bio medical waste disposal). They can use materials like paper, markers, and 3D models to visualize their ideas. (Duration-2 hrs) |
| Experiential-Learning 5.2 | Dhoopana Karma in Neonate and Pediatric care | Students will work as team and fumigate neonatal ward & pediatric ward using Dhupana Karma(preparation of dhoopana dravya, method of administration and monitoring child for any signs of discomfort or allergic reactions). They will later send swabs for culture analysis of minimum six samples (Pre and Post Dhupana Karma) taken from different surfaces in ward including neonatal bed and evaluate the safety and efficacy of Dhupan karma. They will discuss and document the results and challenges faced (eg. managing smoke levels, ensuring comfort for the child) in logbook. (Duration- 2hrs) |
| Experiential- | Bahya Snehana Karma | Students will perform atleast four different Bahya Snehana Karma-(Abhyanga, Kayaseka, Mardana, Utsadana, Shirodhara, |

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| Learning 5.3 | | Shirobasti, Shiro-pichu, Samvahana, Karnapoorana) in minimum 4 children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the vitals of child and observe heen, ati or samyak yoga lakshana. They will document their experiences and challenges in their logbook. (Duration- 3 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Bahya Snehana Karma-(Abhyanga, Kayaseka, Mardana, Utsadana, Shirodhara, Shirobasti, Shiro-pichu, Samvahana, Karnapoorana). They will document their experience and challenges in convincing parents, in their logbook.(Duration- 1 hr)<br>OR<br>Teacher will display video clips (from online or pre-recorded sources) of different Bahya Snehana Karma-(Abhyanga, Kayaseka, Mardana, Utsadana, Shirodhara, Shirobasti, Shiro-pichu, Samvahana, Karnapoorana) and ask students to critique, reflect and develop an understanding of best practices. Students will document their experience in logbook. (Duration- 4 hrs) |
| Experiential-Learning 5.4 | Udwartana in Children | Students will administer Udwartana in minimum 2 children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the vitals of child and observe heen, ati or samyak yoga lakshana. They will document their experiences and challenges in their logbook. (Duration -1 hr)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Udwartana . They will document their experience and challenges in convincing parents, in their logbook. (Duration- 1 hr)<br>OR<br>Teacher will display video clips (from online or pre-recorded sources) of Udwartana and ask students to critique, reflect and develop an understanding of best practices. Students will document their experience in logbook. (Duration-2 hrs) |
| Experiential-Learning 5.5 | Swedana Karma | Students will perform atleast two different Sweda among Ashtasweda (such as Hasta, Pradeha, Nadi, Prastara, Sankar, Upanaha, Avagaha and Parisheka) in minimum of 2 advised children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the vitals of child and observe heen, ati or samyak yoga lakshana. They will document their experiences and challenges in their logbook. (Duration-2 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Ashtasweda. They will document their experience and challenges in convincing parents, in their logbook. (Duration- 1 hr)<br>OR<br>Teacher will display video clips (from online or pre-recorded sources) of different Sweda among Ashtasweda and ask students to critique, reflect and develop an understanding of best practices. Students will document their experience in logbook. (Duration- 3 hrs) |

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| Experiential-Learning 5.6 | Pinda Sweda | Students will administer atleast two different Pinda Sweda (such as shastika shali pinda sweda, patra pottali pinda sweda, valuka sweda ) in minimum 2 children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the vitals of child and observe heen, ati or samyak yoga lakshana. They will document their experiences and challenges in their logbook. (Duration- 2 hrs)<br>OR<br>Teacher will display video clips (from online or pre-recorded sources) of different Pinda Sweda and ask students to critique, reflect and develop an understanding of best practices. Students will document their experiences in logbook.(Duration- 2 hrs) |
| Experiential-Learning 5.7 | Samsarjana krama in Panchkarma | Each student will plan samsarjana krama for two different Panchkarma Procedures based on shuddhi lakshana, age, koshta, agni and bala for atleast two children. They will explain its importance to respective parents and continuously monitor the child's condition. They will document the outcomes of samsarjana krama in their logbook.(Duration- 3 hrs)<br>OR<br>Teacher will provide case vignettes and ask each student to come prepared with samsarjana krama plan. Teacher will facilitate discussion on plan and students will document their learnings in logbook.(Duration- 3 hrs) |
| Experiential-Learning 5.8 | Vamana Karma in Pediatric Practice | Each student will perform Vamana Karma in controlled setting in atleast one child advised, of any age-group, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the vitals of child, note the number of vega and also observe heen, ati or samyak shuddhi lakshana. They will document their experiences and challenges in their logbook.(Duration-2 hr)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of Vamana Karma in specific conditions . They will document their experience and challenges in convincing parents, in their logbook. (Duration-1 hr)<br>OR<br>Teacher will either provide case vignettes on Vamana karma or display video clips (from online or pre-recorded sources) of Vamana Karma and ask students to critique, reflect and develop an understanding of best practices. Teacher will facilitate discussion. Students will document their experience in logbook.(Duration-3 hr) |
| Experiential- | Basti Karma. | Students will perform atleast one of each type of Basti - Niruha, Anuvasana, Chatubadra Kalpa Basti and Matra Basti- in advised |

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| Learning 5.9 | | children, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the vitals of child, note the nirgamana kala and also observe heen, ati or samyak yoga lakshana. They will also educate the parents on benefits of Basti Karma and document their experiences and challenges in their logbook. (Duration- 3 hrs)<br>OR<br>Teacher will share atleast four video clips (from online or pre-recorded sources) of Basti Karma and ask students to critique, reflect and develop an understanding of best practices. Students will document their experience in logbook.(Duration- 3 hrs) |
| Experiential-Learning 5.10 | Gudavarti Prayoga in Pediatric Practice. | Each student will prepare and perform Gudavarti prayoga, to a minimum of 2 children advised, focusing on proper technique, patient safety and comfort during administration. They will also educate child's parent on benefits, indications and safety of Gudavarti. They will document the case experience and challenges faced in their logbook. (Duration-2 hrs) |

**Modular Assessment**

| **Assessment method** | **Hour** |
|---|---|
| Instructions - Conduct a structured Modular assessment. Assessment will be for 50 marks. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.<br>DOPS Assessment- ABHYANGA (50 Marks)<br>Perform on a patient or simulated patient. Real-time observation by faculty assessor.<br>Checklist and Scoring Rubric:<br>• Preparation and Communication-Explains procedure to guardian, maintains rapport with child. (6 marks)<br>• Hand hygiene and Setup- Cleans hands, organises materials. (4 marks)<br>• Selection of appropriate oil & Dosha consideration- Matches oil to child's Prakriti/Ritu (6 marks)<br>• Correct positioning and comfort of the child- Ensures sfety, comfort and warmth (4 marks)<br>• Sequence and Direction of Massage - Follows appropriate order and strokes. (10 marks)<br>• Application of appropriate pressure and rhythm- Gentle yet firm, age-appropriate. (4 marks)<br>• Monitoring the child during procedure-Observes for discomfort, signs (4 marks)<br>• Post-Abhyanga Care- proper aftercare given. (4 marks)<br>• Viva- Explains age-specific benefits and logic. (4 marks)<br>• Professionalism and Documentation- Maintains decorum and records (4 marks)<br><br>Grading Criteria:<br>• Excellent (41–50): Highly confident, safe, systematic, with clear understanding | 4 |

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| • Good (31–40): Minor errors, good flow, basic rationale explained well<br>• Average (21–30): Acceptable performance but with noticeable gaps in technique or reasoning<br>• Needs Improvement (<20): Major gaps in steps, unsafe handling, unclear understanding<br><br>OR<br>Any practical in converted form can be taken for assessment.( 25 Marks)<br>AND<br>Any of the experiential as portfolio/ refelections / presentations can be taken as assessment. ( 25 Marks) | |

**Module 6** : Bala Panchakarma-II

**Module Learning Objectives**
**(At the end of the module, the students should be able to)**

1. Analyze the clinical application of Panchakarma.
2. Demonstrate proficiency in selecting and customizing Bala Panchakarma.
3. Perform Panchakarma procedures in children effectively.
4. Evaluate the outcomes of Panchakarma in children.
5. Apply ethical and cultural sensitivity in Bala Panchakarma.

**Unit 1 Nasya Karma**

- Types and classification
- Method (Poorva, Pradhan and Pashchat Karma) and Application
- Indications and contraindications
- Relevant Modifications in children
- Selection of Nasya Dravya
- Mode of action
- Samyaka Lakshana
- Nasya Vyapada and Chikitsa
- Other Poorva and Pashchat karma

**References:** 3,26,43,49,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO4,CO6,CO8 | Analyse significance of Nasya Karma in children. | 1 | Lecture | CAN | Knows-how | FC,L&GD,L&PPT |

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| CO4,CO6 | Demonstrate child friendly protocol for preparation and administration of Nasya Karma. (Snehana Nasya, Avapeedaka, Dhmapana, Sanjnaprabodhana Nasya) | 4 | Practical Training 6.1 | PSY-GUD | Shows-how | D,D-M,KL |
| CO1,CO4,CO5,CO6,CO7 | Perform Nasya Karma, justify and communicate its significance to parents/caregivers. | 4 | Experiential-Learning 6.1 | PSY-MEC | Does | RLE,RP,SIM |
| CO1,CO5,CO6,CO7 | Evaluate Nasya Karma in children. | 3 | Experiential-Learning 6.2 | CE | Does | PL,TBL |
| CO1,CO4,CO8 | Analyze child-specific considerations, prerequisites, indications, contraindications, modifications, benefits, and complications of Nasya Karma. | 2 | Lecture | CAN | Knows-how | FC,L&GD,L_VC |

**Unit 2 Dhara , Bahya Basti and Lepa**

Dhara: Ekanga dhara/Sarvanga Dhara/Shirodhara

- Method (Poorva, Pradhan and Pashchat Karma) and Application
- Indications and contraindications
- Relevant Modifications in children
- Selection of Dhara Dravya
- Mode of action
- Samyaka Lakshana
- Dhara Vyapada and Chikitsa

Bahya Basti: Shirobasti/ Urobasti/ Nabhi basti/Kati Basti/Prishta basti/ Janu Basti/ Hridbasti

- Method (Poorva, Pradhan and Pashchat Karma) and Application
- Indications and contraindications
- Relevant Modifications in children
- Selection of Basti Dravya
- Mode of action
- Samyaka Lakshana
- Basti Vyapada and Chikitsa

Lepa: Types- Pralepa, Pradeha, Aalepa

- Method(Poorva, Pradhan and Pashchat Karma) and Application
- Indications and contraindications
- Relevant Modifications in children
- Selection of Lepa Dravya
- Mode of action
- Samyaka Lakshana
- Lepa Vyapada and Chikitsa

**References:** 3,26,43,49,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO4 | Analyze Moordhni Taila procedures in pediatric practice. | 1 | Lecture | CAN | Knows-how | FC,L&PPT ,L_VC |
| CO4,CO6 | Demonstrate the procedures and techniques for performing Moordhni Taila. | 3 | Practical Training 6.2 | PSY-GUD | Shows-how | D,D-M,KL |
| CO4,CO6 | Demonstrate Bahya Basti procedure in children.<br>(Greeva Basti, Manya Basti, Kati Basti, Janu Basti) | 4 | Practical Training 6.3 | PSY-GUD | Shows-how | D,D-M,KL |
| CO4,CO6 | Perform Moordhni Taila in children and explain its significance to caregivers.(Shirodhara, Shiro pichu, Shirolepa, Shiroabhyanga, Shiro Basti) | 4 | Experiential-Learning 6.3 | PSY-MEC | Knows-how | RLE,SIM |
| CO4,CO6 | Perform Lepa Karma in children and explain its significance to caregivers. | 3 | Experiential-Learning 6.4 | AFT-VAL | Shows-how | KL,PL,RLE |
| CO1,CO4,CO8 | Analyze significance of Miscellaneous Procedures (Pichu, Thalam, Gandusha, Kavala, Karnapoorana) in children. | 1 | Lecture | CAN | Knows-how | L&GD,L_VC |

**Unit 3 Kriya Kalpa and Miscellaneous Procedures**

- Kriya Kalpa–Seka, putapaka, Achyotana, Anjana, Pindi, Bidalaka, Akshitarpana– Indications, contraindications, selection of Dravya and its dosages, Application, rele modifications, mode of action, Complications and their management.
- Miscellaneous procedures –Pichu, Thalam, Gandoosha, Kavala, Karnapoorana - Indications, contraindications, selection of Dravya and its dosages, Application, relev modifications, mode of action, Complications and their management.

**References:** 3,26,43,49,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO4,CO6 | Analyze Kriya Kalpa procedures in pediatric practice. (Tarpana, Putapaka, Ashchotana, Bidalaka) | 2 | Lecture | CAN | Knows-how | FC,L&GD,L_VC |
| CO4,CO6 | Demonstrate preparation and protocol for child friendly administration of Kriya Kalpas. | 4 | Practical Training 6.4 | PSY-GUD | Shows-how | D,KL,SIM |
| CO4,CO6 | Perform Kriya Kalpa in children and communicate its significance to parents/caregivers. | 3 | Experiential-Learning 6.5 | AFT-VAL | Does | C_L,RLE,SDL |
| CO4,CO6 | Perform Miscellaneous Procedures safely (Pichu, Thalam, Gandusha, Kavala,Karnapoorana) and communicate its significance to parents/caregivers. | 3 | Experiential-Learning 6.6 | PSY-MEC | Does | RLE,SDL |

**Unit 4 Panchakarma in special cases of differently abled children and Anushastra Procedures**

- Selection of Panchakarma procedures as per need in Cerebral Palsy, Autism Spectrum Disorders, Down Syndrome, Neuromuscular Disorders, Developmental Delays Vikara, Pranavaha strotovikara
- Relevant modification in equipment’s/ Instruments and procedures.
- Anushastra procedures - Raktamokshana, Agnikarma, Ksharakarma, Bandaging-Indications, contraindications, Application, relevant modifications, mode of action, C and their management.

**References:** 3,26,43,49,72,73,74,75,76,82

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO4,CO6,CO8 | Justify Panchakarma modifications based on the functional abilities of differently abled children. | 3 | Lecture | CE | Knows-how | L&GD,L &PPT ,L_VC |
| CO4,CO6 | Demonstrate safe and effective panchakarma adaptations for children with developmental disabilities.(e.g., a child with cerebral palsy or autism) | 5 | Practical Training 6.5 | PSY-MEC | Shows-how | D,RP |
| CO4,CO6 | Perform Panchakarma in children with developmental disabilities and communicate its significance to parents/caregivers. | 3 | Experiential-Learning 6.7 | PSY-MEC | Does | DIS,RLE |
| CO1,CO4,CO6 | Perform Anushastra Karma in children with safety and communicate its significance to parents/caregivers. | 3 | Experiential-Learning 6.8 | PSY-MEC | Does | CBL,D-BED |

**Practical Training Activity**

| Practical No | Name | Activity details |
|---|---|---|
| Practical Training 6.1 | Nasya Karma in Children | Demonstration<br>Teacher will use manikins or patient to demonstrate step-by step poorva, pradhana and pashchat karma (preparation and administration techniques) of Nasya Karma. Highlight child-friendly communication, positioning and procedures. Also, focus on observing signs of Samyak, Atiyoga, and Ayoga of Nasya Karma. Later students will demonstrate same taking turns, followed by real-time feedback by peers and teacher. (Duration- 3 hrs)<br>Role-Play<br>Teacher presents role-play on counseling parents about the condition of child and necessity for Nasya Karma. Students will be paired and assigned roles as practitioners, patient and caregivers. They will practice counseling parents and convincing them about safe practice of Nasya Karma and its significance. (Duration-1 Hr) |

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| Practical Training 6.2 | Moordhni Taila. | Demonstration<br>Teacher will demonstrate step-by step poorva, pradhana and pashchat karma (preparation and administration techniques and post administrative measures ) of Moordhni Taila on manikin/patient/child. Highlight child-friendly communication, positioning and procedures. Also, focus on observing signs of Samyak, Atiyoga, and Ayoga of Nasya Karma. Later students will replicate same taking turns, followed by real-time feedback by peers and teacher. (Duration- 3 hrs) |
| Practical Training 6.3 | Bahya Basti Procedures (Greeva Basti, Manya Basti, Kati Basti, Janu Basti) | Demonstration<br>Teacher will demonstrate to step-by step poorva, pradhana and pashchat karma (preparation and administration techniques) of Bahya Basti (Greeva Basti, Manya Basti, Kati Basti, Janu Basti)on manikin/patient. Highlight child-friendly communication, positioning and procedures. Also, focus on observing signs of Samyak, Atiyoga, and Ayoga of Bahya Basti. Later students will replicate same taking turns, followed by real-time feedback by peers and teacher. (Duration- 3 hrs)<br>Role-Play<br>Teacher presents role-play on counseling parents about the condition of child and necessity for Bahya Basti. Students will be paired and assigned roles as practitioners, patient/caregivers. They will practice counseling parents and convincing them about safe practice of Bahya Basti and its significance. (Duration-1 Hr) |
| Practical Training 6.4 | Kriya Kalpas in Pediatric Practice (Aschyotana, Seka, Anjana, putapaka, Tarpana). | Video Based Learning<br>Teacher will display videos of kriya kalpas (Aschyotana, Seka, Anjana, putapaka, Tarpana) being prepared and administered to children. Discuss (Poorva, Pradhana and Pashchat Karma) observed techniques, specific considerations, management of complications and key takeaways. (Duration - 1 hr)<br>Demonstration<br>Teacher will use manikins or patient to demonstrate step-by step poorva, pradhana and pashchat karma (preparation and administration techniques) of Kriya Kalpas (Aschyotana, Seka, Anjana, putapaka, Tarpana). Highlight child-friendly communication, positioning and procedures. Also, focus on observing signs of Samyak, Atiyoga, and Ayoga of Nasya Karma. Later students will demonstrate same taking turns, followed by real-time feedback by peers and teacher. (Duration- 3 hrs) |
| Practical Training 6.5 | Adapted Panchkarma for Developmental Disabilities | Demonstration<br>Teacher will demonstrate Panchakarma procedure (e.g., Abhyanga or Basti) adapted for a child with a specific developmental disability(e.g., a child with cerebral palsy or autism). Key focus will be on explaining safety protocols, modifications, and considerations such as posture, dosage, and comfort measures. Students will observe, take notes, and ask questions about the rationale for each adaptation. Later they will demonstrate same taking turns, followed by real-time feedback by peers and teacher. |

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| | | (Duration- 4 hrs)<br>Role-Play<br>Teacher presents role-play on counseling parents about the condition of child and necessity for PanchKarma. Students will be paired and assigned roles as practitioners, patient/caregivers. They will practice counseling explaining the adapted Panchakarma procedure to caregivers, highlighting its safety, modifications, and expected outcomes. (Duration-1 Hr) |
| **Experiential learning Activity** | | |
| **Experiential learning No** | **Name** | **Activity details** |
| Experiential-Learning 6.1 | Nasya Karma in Children | Students will perform atleast two different Nasya Karma(Marsha,Pratimarsha, Avapeedana, Pradhman, Dhuma) in minimum 3 children each of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. One student will administer and others will observe and video record the procedure for reflection.They will monitor the child and observe heen, ati or samyak yoga lakshana. Peers and Teacher will provide feedback. They will reflect on their experiences and challenges after watching their recorded video in their logbook. (Duration 2 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Nasya Karma (Marsha,Pratimarsha, Avapeedana, Pradhman, Dhupan). They will document their experience and challenges in convincing parents, in their logbook. (Duration - 2hrs)<br>OR<br>Teacher will display video clips (from online or pre-recorded sources) of Nasya Karma(Marsha,Pratimarsha, Avapeedana, Pradhman, Dhuma) and ask students to critique, reflect and develop an understanding of best practices. Teacher will facilitate discussion. Students will document their experience in logbook. (Duration - 4hrs) |
| Experiential-Learning 6.2 | Nasya Karma- Part II | Students will prepare checklist for Vaya,Vyadhi, Kala, Bala specific Nasya Karma in children. Teacher will facilitate discussion for usage of checklist in clinical practice. Student will document the same in logbook. (Duration- 1 hr)<br>Students will maintain a reflective journal documenting their experiences, insights, and ideas for improving the use and efficacy of Nasya therapy, focusing on child friendly practices for its implementation. (Duration- 2hrs) |
| Experiential-Learning 6.3 | Moordhni Taila (Shirodhara, Shiro pichu, Shirolepa, | Students will perform atleast two different procedures of Moordhni Taila (Shirodhara, Shiro pichu, Shirolepa, Shiroabhyanga, Shiro Basti) in minimum 3 children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the child and observe heen, ati or samyak yoga lakshana. They will document their experiences and |

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| | Shiroabhyanga, Shiro Basti) in Children | challenges in their logbook. (Duration-2 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Moordhni Taila (Shirodhara, Shiro pichu, Shirolepa, Shiroabhyanga, Shiro Basti). They will document their experience and challenges in convincing parents, in their logbook. (Duration-2 hrs)<br>OR<br>Teacher will display video clips (from online or pre-recorded sources) on Moordhni Taila (Shirodhara, Shiro pichu, Shirolepa, Shiroabhyanga, Shiro Basti) and ask students to critique, reflect and develop an understanding of best practices. Teacher will facilitate discussion. Students will document their learnings in logbook.(Duration-4 hrs) |
| Experiential-Learning 6.4 | Application of Lepa in Children. | Students will perform atleast two different Lepa in minimum 3 children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the child and observe heen, ati or samyak yoga lakshana. They will document their experiences and challenges in their logbook. (Duration-2 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Lepa . They will document their experience and challenges in convincing parents, in their logbook. (Duration-1 hr)<br>OR<br>Teacher will either provide case vignettes on Lepa or display video clips (from online or pre-recorded sources) of different Lepa and ask students to critique, reflect and develop an understanding of best practices. Teacher will facilitate discussion. Students will document their experience in logbook.(Duration-3 hrs) |
| Experiential-Learning 6.5 | Kriya Kalpa in Children | Students will perform atleast two different Kriya Kalpa(Aschyotana, Seka, Anjana, putapaka, Tarpana) in minimum 3 children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the child and observe heen, ati or samyak yoga lakshana. They will document their experiences and challenges in their logbook. (Duration- 2 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Kriya Kalpa . They will document their experience and challenges in convincing parents, in their logbook. (Duration-1 hr)<br>OR<br>Teacher will display video clips (from online or pre-recorded sources) of different Kriya Kalpa and ask students to critique, reflect and develop an understanding of best practices. Teacher will facilitate discussion. Students will document their experience in logbook.(Duration-3 hr) |
| Experiential- | Miscelleneous | Students will perform atleast three different Miscelleneous Procedures (Pichu, Thalam, Gandoosha, Kavala, Karnapoorana) in |

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| Learning 6.6 | Procedures (Pichu, Thalam, Gandoosha, Kavala, Karnapoorana). | minimum three children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the vitals of child and observe heen, ati or samyak yoga lakshana. They will document their experiences and challenges in their logbook. (Duration-2 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 3 parents about the safe practice and significance of different Miscelleneous Procedures (Pichu, Thalam, Gandoosha, Kavala, Karnapoorana). They will document their experience and challenges in convincing parents, in their logbook.(Duration- 1 hr)<br>OR<br>Teacher will display video clips (from online or pre-recorded sources) of Miscelleneous Procedures (Pichu, Thalam, Gandoosha, Kavala, Karnapoorana) and ask students to critique, reflect and develop an understanding of best practices. Teacher will facilitate discussion. Students will document their experience in logbook.(Duration- 3 hr) |
| Experiential-Learning 6.7 | Panchakarma Care for Developmental Disabilities.(e.g., a child with cerebral palsy or autism) | Students will perform atleast two different Panchkarma Procedures in minimum 2 children with disabilities(e.g., a child with cerebral palsy or autism), of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the vitals of child and observe heen, ati or samyak yoga lakshana. They will educate parents of these children about the safe practice and significance of different Panchakarma Procedures and document the child specific modifications made and challenges faced in their logbook. (Duration 2 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Panchakarma Procedures in children with developmental disabilities. . They will document their experience and challenges in convincing parents, in their logbook. (Duration-1 hr)<br>OR<br>Teacher will display video clips on Panchakarma Procedures in children with developmental disabilities (from online or pre-recorded sources) and ask students to critique, reflect and develop an understanding of modifications for best practices. Students will document their experience in logbook.(Duration-1 hr) |
| Experiential-Learning 6.8 | Anushastra karma in Pediatric Practice | Each student will perform one of the Anushastra Karma (Jalaukavacharana, Ksharakarma, Agnikarma) in minimum 3 children of different age-groups, adhering to standard guidelines of Poorva, Pradhana and Paschat Karma. They will monitor the child and observe heen, ati or samyak yoga lakshana. They will document their experiences and challenges in their logbook. (Duration-2 hrs)<br>Each student will prepare atleast one of the educational tools as leaflet, poster or digital content to educate minimum of 2 parents about the safe practice and significance of different Anushastra karma . They will document their experience and challenges in convincing parents, in their logbook. (Duration- 1 hr)<br>Teacher will either provide case vignettes on Anushastra karma or display video clips (from online or pre-recorded sources) of different Anushastra karma (Jalaukavacharana, Kshara, Agni) and ask students to critique, reflect and develop an understanding of |

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| | | best practices. Teacher will facilitate discussion. Students will document their experience in logbook.(Duration- 1 hr) | |

**Modular Assessment**

| Assessment method | Hour |
|---|---|
| Instructions - Conduct a structured Modular assessment. Assessment will be for 50 marks. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.<br>DOPS Assessment- Akshitarpana (50 Marks)<br>Perform on a patient/simulated patient.Real-time observation by faculty assessor.<br>Checklist and Scoring Rubric:<br>• Preparation and Communication-Explains procedure to guardian, maintains rapport with child. (6 marks)<br>• Hand hygiene and Setup- Cleans hands, organises materials. (4 marks)<br>• Selection of appropriate drug (Sneha/dravya) - Suitable for child's condition (6 marks)<br>• Proper construction of boundary - Symmetrical, leak-proof, correct height (4 marks)<br>• Position and comfort- Supine, relaxed, proper support (2 mark)<br>• Proper pouring of sneha/dravyaand maintenance- Steady flow, temperature, eye coverage (6 marks)<br>• Monitoring the child during procedure-Observes for discomfort, blinking etc. (4 marks)<br>• Removal of Sneha/Dravya and eye cleansing-Gentle, clean, no residue left.(4 marks)<br>• Post-procedure instructions and aftercare-Anjana, dietary advice, rest(4 marks)<br>• Classical justification & confidence (Viva)-Explains benefits, indications, logic (4 marks)<br>• Professionalism and Documentation- Maintains decorum and records (4 mark)<br><br>Grading Criteria:<br>• Excellent (41–50): Confident, smooth, accurate, and clearly explained with classical logic.<br>• Good (31–40): Mostly correct steps, minor errors, fair understanding of rationale.<br>• Average (21–30): Some inconsistencies, acceptable skill, needs improvement in reasoning.<br>• Needs Improvement (<20): Poor technique, unsafe, unclear understanding or missed steps<br><br>OR<br>Any practical in converted form can be taken for assessment.(25 marks)<br>AND<br>Any of the experiential as portfolio/ refelections / presentations can be taken as assessment.( 25 marks) | 4 |

**Module 7** : Child Health Programmes, Regulatory Laws and ethics of Genetics

**Module Learning Objectives**
**(At the end of the module, the students should be able to)**

- Analyze National child Health Program
- Interpret regulatory frameworks
- Evaluate ethical consideration in genetics
- Integrate legal and ethical practices

**Unit 1 National Health & Nutritional Programs related to children**

- Janani shishu karyakram
- Rashtriya Bal Swasthya Karyakram
- Integrated Child Development scheme
- National health Programs related to control of communicable and non-communicable diseases.
- Mid-day meal program
- School health program
- National health Mission

**References:** 4,45,58,59

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO3,CO8 | Analyze the role of National Health Programs and Nutritional Programs in promoting pediatric health.<br>(Janani shishu karyakram, Rashtriya Bal Swasthya Karyakram, Integrated Child Development Scheme, National Health Programs related to the control of communicable and non-communicable diseases, Mid-day meal program, School health program). | 3 | Lecture | CAN | Knows-how | FC,L&PPT ,L_VC |
| CO1,CO5,CO6 | Demonstrate, counselling parents/caregivers using national health and nutritional | 2 | Practical | PSY- | Shows- | CBL,D,P |

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| | programs to promote pediatric health in community.<br>(Janani shishu karyakram, Rashtriya Bal Swasthya Karyakram, Integrated Child Development scheme, National health Programs related to control of communicable and non-communicable diseases, Mid-day meal program, School health program, National health Mission) | | Training 7.1 | GUD | how | BL,SIM |
| CO1,CO5,CO6 ,CO8 | Counsel parents/caregivers about the significance of relevant National Health & Nutritional Programs related to children to promote pediatric health.<br>(Janani shishu karyakram, Rashtriya Bal Swasthya Karyakram, Integrated Child Development scheme, National health Programs related to control of communicable and non-communicable diseases, Mid-day meal program, School health program, National health Mission) | 7 | Experiential-Learning 7.1 | AFT-VAL | Does | FV,PBL,SDL |

**Unit 2 Regulatory Laws and Acts**

Regulatory laws related to neonatal, infantile and paediatrics clinical practice.
Laws on infant feeding and children’s foods

**References:** 4,45,59,77,79,80

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO6 | Analyze key provisions and implications of regulatory laws safeguarding child health, rights and welfare. | 1 | Lecture | CAN | Knows-how | FC,L&GD,L&PPT |
| CO1,CO5,CO6 | Demonstrate the application of neonatal, infantile and pediatric regulatory laws & acts in clinical practice.<br>(Infant feeding and Children's foods Act, Juvenile Justice Act, POCSO act in clinical decision making and reporting scenarios). | 2 | Practical Training 7.2 | PSY-GUD | Shows-how | CBL,DIS,JC |
| CO1,CO5,CO6 | Educate parents/caregivers about Regualtory laws and acts (Neonatal, Infantile and pediatric) to ensure protection and welfare of the children. | 4 | Experiential-Learning 7.2 | AFT-VAL | Shows-how | PER,RLE |

**Unit 3 Challenges and Opportunities in Kaumarabhritya**

Challenges and future opportunities in child health care.
Role and responsibilities of a Kaumarabhritya specialist in health and wellness

**References:** 35,45

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO5,CO6 | Analyse Ayurveda principles in pediatric care and explore integrated health opportunities. | 1 | Lecture | CAN | Knows-how | FC,IBL,L &GD |
| CO1,CO5,CO6 | Apply Ayurveda principles in pediatric care and explore integrated health opportunities. | 2 | Practical Training 7.3 | CE | Shows-how | CBL,DIS, PL,SIM |
| CO1,CO5,CO6 | Evaluate Ayurveda's role in pediatric care and integrated community health. | 3 | Experiential-Learning 7.3 | AFT-VAL | Shows-how | FV,SDL |

**Unit 4 Genetic Risk Assessment and ethics**

- Pedigree Analysis
- Genetic Risk Assessment
- Linkage analysis
- Genetic imprinting
- Genetic counselling,
- Genetic ethics

**References:** 8,35,45,55

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|

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|---|---|---|---|---|---|---|
| CO1,CO6,CO8 | Describe genetic risk assessment principles and their application in predicting the hereditary conditions.<br>(Genetic Risk Assessment including following points<br>Pedigree Analysis, Genetic counselling, Genetic ethics, Genetic imprinting, Linkage analysis) | 1 | Lecture | CAP | Knows-how | FC,L&GD |
| CO1,CO5,CO6 | Demonstrate ethical counseling of parents/caregivers on genetic risk assessment. | 2 | Practical Training 7.4 | AFT-VAL | Shows-how | D,DIS,PL,RP |
| CO1,CO5,CO6,CO8 | Counsel parents on the importance of preventive genetics and genetic risk assessment. | 3 | Experiential-Learning 7.4 | AFT-VAL | Shows-how | PBL,RLE,SDL |
| CO3,CO8 | Demonstrate Pedigree and Linkage analysis to identify gene inheritance and location with its clinical implication. | 2 | Practical Training 7.5 | PSY-GUD | Shows-how | D,W |
| CO1,CO5,CO6 | Demonstrate genetic imprinting principles and its parental association with diseases. | 2 | Practical Training 7.6 | PSY-GUD | Shows-how | CBL,D |

**Unit 5 Epigenetics and its role in prevention of genetic disorder**

- Epigenetics in Ayurveda -Paternal and maternal genetic potential
- Environmental factors and genetic health (Hazards, radiation, pollution, addictions, life style medications)
- Periconceptional, post conceptional factors
- Tridosha - Triguna and genetic health (Stress, disorders, Prakruthi)

**References:** 8,28,43,45,55

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO6 | Analyze the role of Epigenetics in the prevention of genetic disorders.<br>(Prakriti of parents, Preconceptional factors, Environmental factors) | 2 | Lecture | CAN | Knows-how | DIS,FC,L&GD |

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| CO1,CO6,CO8 | Demonstrate the role of epigenetics in preventing genetic disorders. | 3 | Practical Training 7.7 | PSY-GUD | Shows-how | CBL,DIS,JC |
| CO1,CO6 | Communicate the role of epigenetics in genetic disorders and educate parents/caregivers and the community. | 3 | Experiential-Learning 7.5 | AFT-VAL | Does | RLE,RP,TBL |

**Unit 6 Gene Sampling, Gene and Stem cell Therapy**

- Genetic sampling and interpretation of genetic reports
- Hardy- Weinberg equilibrium
- Mary Lyon hypothesis
- Gene therapy
- Stem cell therapy

**References:** 8,28,55

| 3A | 3B | 3C | 3D | 3E | 3F | 3G |
|---|---|---|---|---|---|---|
| CO1,CO6,CO8 | Discuss the principles, techniques, ethical considerations and advancements in gene sampling, genetic research and diagnostics.<br>(Genetic sampling and interpretation of genetic reports, Hardy- Weinberg equilibrium, Mary Lyon hypothesis , Gene therapy, Stem cell therapy) | 2 | Lecture | CE | Knows-how | FC,L&PPT ,L_VC |
| CO1,CO3 | Demonstrate Gene and Stem cell therapy techniques and interpret genetic reports. | 5 | Practical Training 7.8 | PSY-GUD | Shows-how | CBL,D,SIM |
| CO1,CO5,CO6 ,CO8 | Analyze the role of gene sampling, gene, and stem cell therapy in preventing and treating genetic disorders. | 6 | Experiential-Learning 7.6 | PSY-GUD | Shows-how | CBL,FV,RLE |

**Practical Training Activity**

| Practical No | Name | Activity details |
|---|---|---|
| Practical Training 7.1 | National Health & Nutritional Programs | Case-Based Learning<br>The teacher will discuss cases, ask guiding questions, and demonstrate how to incorporate knowledge from health programs into a solution (e.g., promoting nutritional meals through the Mid-Day Meal Program or advising on immunization schedules from the National Immunization Program).Tteacher will then provide cases like a malnourished child, an adolescent with anemia or a mother with limited prenatal care and students will identify which programs (e.g.,ICDS, Mid-Day Meal, JSSK) would be applicable, discussing counselling strategies tailored to the family's context. (Duration - 2 hrs) |
| Practical Training 7.2 | Application of Regulatory laws & acts in Clinical Practice. | Case-Based Discussions<br>Teacher will demonstrate filling out forms for different cases under relevant acts. Later provide students with case studies and templates for mandatory reporting forms under the POCSO Act and Juvenile Justice Act. and ask students to fill out forms based on case studies. Include documentation for referals to child welfare committees or legal authorities. Highlight the importance of confidentiality. (Duration 1 hr)<br>Presentation-Journal Club<br>The teacher will demonstrate the application of neonatal, infantile and pediatric regulatory laws & acts in clinical practice through different case scenarios. Each student will be asked to refer to journals and newspapers to identify and present short cases related to regulatory laws. (Duration- 1 hr) |
| Practical Training 7.3 | Challenges and Opportunities in Kaumarabhritya | Case-Based Learning<br>Teaacher will demonstrate application of Ayurveda Principles (Dosha, Agni, Bala, Ojas) in diagnosis of health issues in children of different age-groups.(eg. Tamak Shwasa, Pandu etc) and challenges faced in diagnosing within the context of Kaumarabhritya. Student will be paired and each pair will be provided a case-vignette to analyse the condition based on Ayurveda principles and discuss the challenges and possible opportunities in dealing with the given case.(Duration - 2 hrs) |
| Practical Training 7.4 | Genetic Counseling. | Demonstration and Role-Play<br>Teacher models a role-play, where they act as a counselor explaining the significance of genetic risk assessment to a parent (played by a student) emphasizing on confidentiality, informed consent, non-directiveness, cultural sensitivity, empathy and support. Students are paired to perform role-play counselling session in turns, followed by feedback by peers and teacher. (Duration - 2 hrs) |
| Practical Training 7.5 | Pedigree Analysis and Linkage analysis | Demonstration<br>Teacher will demonstrate construction and interpretation of a pedigree chart using a sample family history of a genetic disorder. Teacher will divide students in pairs, provide two case scenarios to each pair and student will create a pedigree and identify |

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| | | patterns (eg. autosomal dominant, recessive, x-linked.). Teacher will summarise the session and provide feedback to students. (Duration-1 hr)<br>Workshop<br>Teacher will demonstrate linkage analysis using software or tools to map a gene's location based on provided genetic markers. Students will be paired and provided example datasets to perform linkage analysis. They will interpret results to determine gene location and its clinical significance. (Duration- 1 hr) |
| Practical Training 7.6 | Genetic Imprinting | Case Based Learning<br>Teacher will present a case of an imprinting disorder (eg., Prader-Willi and Angelman Syndrome) and explain the parental inheritance pattern and associated clinical symptoms. Students will be paired and asked to analyse a provided family history of a disorder linked to imprinting and discuss the parental association with the disease. (Duration- 1hr)<br>Demonstration<br>Teacher will use a visual model or animation to show how the expression of certain genes depends on parent of origin (eg., Prader-Willi and Angelman Syndrome). Teacher will then provide case vignettes to students to analyse the imprinting mechanism for a given case study or genetic scenario, illustrating how the disorder manifests based on parental origin of the allele. They will discuss the genetic and clinical aspects of imprinting with teacher. (Duration- 1 hr) |
| Practical Training 7.7 | Role of epigenetics in prevention of genetic disorder. | Demonstration<br>The teacher will explain the principles of epigenetics, including DNA methylation, histone modification, and non-coding RNA mechanisms, emphasizing their role in gene expression regulation and disease prevention. A demonstration using interactive models or software will illustrate how prakriti of parents, desh, kala, ahara-vihara and other environmental factors (e.g., nutrition, stress, toxins) influence epigenetic modifications.<br>Following the session, students will:<br>• Observe the teacher’s demonstration on epigenetic regulation and its impact on gene expression.<br>• Analyze case studies of epigenetic influences in conditions like Prader-Willi syndrome, Beckwith-Wiedemann syndrome, or fetal programming.<br>• Identify lifestyle and environmental modifications that could mitigate epigenetic risks for genetic disorders.<br>• Participate in a discussion on translational applications, such as early interventions in pregnancy and pediatric care.<br>• Document key learnings and propose preventive strategies based on epigenetic principles. (Duration - 3 hrs) |

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| Practical Training 7.8 | Gene Sampling, Gene and Stem cell Therapy | Demonstration<br>The teacher will introduce different genetic testing modalities (e.g., Karyotyping, FISH, PCR, Microarray, Whole Exome Sequencing, and Next-Generation Sequencing) and their clinical applications in pediatric disorders. A case-based discussion will be conducted where students will analyze patient histories and clinical presentations to determine the most suitable genetic test.<br>Following the session, students will:<br>• Observe the teacher’s demonstration on selecting appropriate genetic tests based on clinical scenarios.<br>• Analyze provided pediatric cases (e.g., suspected chromosomal abnormalities, metabolic disorders, or genetic syndromes).<br>• Identify the most appropriate genetic test, justifying their selection based on cost, accuracy, and turnaround time.<br>• Discuss ethical considerations and pre-test counseling strategies.<br>• Present their recommendations and receive feedback from peers and the teacher. (Duration-2 hrs)<br><br>Lab Report Interpretations<br>The teacher will provide students with various genetic reports, including karyotyping, Whole Exome Sequencing (WES), and Next-Generation Sequencing (NGS) data. The session will focus on interpreting key genetic findings, identifying pathogenic variants, and correlating them with clinical conditions. The importance of genetic counseling and ethical considerations will also be emphasized.<br>Following the session, students will:<br>• Observe the teacher’s demonstration on interpreting genetic reports, focusing on essential markers and findings.<br>• Analyze assigned genetic reports and extract clinically relevant information.<br>• Correlate genetic findings with patient case histories.<br>• Discuss ethical challenges and implications of genetic testing in pediatric care.<br>• Present their interpretations and receive feedback from peers and the teacher. (Duration-3 hrs) |
| **Experiential learning Activity** | | |

| Experiential learning No | Name | Activity details |
|---|---|---|
| Experiential-Learning 7.1 | National Health & Nutritional Programs | Students will identify atleast 2 eligible families and counsel them on programs relevant to their child's health(eg. vaccination, nutrition, growth monitoring). They will document it in their logbook. (Duration -2 hrs)<br>Students will visit minimum 2 schools or Anganwadis to observe program implementation (eg., Communicable and non-communicable disease control, Mid-Day Meal, School Health Program). They will document their experience in the logbook. (Duration- 2 hrs)<br>Students will prepare and distribute any one of the informational resourses, easy-to understand pamplets, leaflets or digital content about any one of the program benefits (Include eligibility criteria, services offered and contact details for enrollment). (Duration- 1 hr)<br>Students will participate in minimum 1 group counseling session in hospital or community centre. They would explain the importance of immunization, balanced nutrition, hygiene and prevention of diseases through national health programs. (Duration -2 hrs) |
| Experiential-Learning 7.2 | Regualtory Laws and Acts (Neonatal, Infantile and Pediatric) | Student will work in pairs and each pair will prepare and present a report on foods that should and should not be used in infant and children as per laws on infant feeding and children’s foods. Teacher will facilitate discussion and students will document keypoints in their logbook. (Duration 2 hrs)<br>Student will prepare any one of the educational tools (leaflets, posters or digital content) and participate in community settings to educate parents on Regulatory Laws on survival and education. They will document the keypoints from the session in logbook. (Duration-2 Hr) |
| Experiential-Learning 7.3 | Challenges and Opportunities of Kaumarabhritya in Community Health | Students will visit atleast anyone of these - Anganwadis, schools or schools for special children and raise awareness among children and their parents, using any one of the educational tools as leaflet, poster or digital content on principles of Ayurveda and its significance in maintaining health and healthy progeny. They will document their experience in logbook. (Duration-3 hrs) |

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| Experiential-Learning 7.4 | Counseling on Preventive Genetics and Risk Assessment | Students will do pedigree analysis of minimum five patients and document it in their logbook. Teacher will facilitate discussion on the observations made by students and also provide students with different pedigree analysis charts( from online-offline sources) to identify the related condition and summarise the session with keypoints. (Duration- 2 hr)<br>Student will counsel minimum one parent of children with genetic disorders using SPIKES protocol (Setting, Perception, Invitation, Knowledge, Empathy, Summary) to explain child's condition and further recurrence risk of genetic disorder in family. They will document their experience and challenges faced in counseling parents, in their logbook. (Duration- 1 hr) |
| Experiential-Learning 7.5 | Epigenetics and its role in prevention of genetic disorder | Each student will review atleast two recent research articles related to epigenetics and identify the factors (Satmya- asatmyaja Bhava, Ahara- Vihara, achara- Vichara, Aushadhi, Environmental Hazards, pre-conceptional factors, post-conceptional factors, radiation, pollution, addictions) contributing to epigenetic hazards. Teacher will facilitate collective analysis of the data obtained and students will collectively prepare a report on epigenetics. Students will document the keypoints in their logbook. (Duration- 2 hrs)<br>Students will prepare a checklist of common day-to-day practices which may be responsible for epigenetic changes . They will use this data to raise awareness in community. (Duration-1 hr) |
| Experiential-Learning 7.6 | Gene Sampling, Gene and Stem cell Therapy | Students will visit genetic labs and document the process of collection and processing of genetic samples for testing (molecular, chromosomal karyotyping, whole exome sequencing, whole genome sequencing, cytogenetic test) in their logbook. (Duration-2 hrs)<br>Students will interpret atleast 4 genetic testing reports (variant classification, gene expression analysis, mutation analysis, genotype -phenotype correlations) and corelate with clinical features in patients. They will document these cases in their logbook. (Duration-2 hrs)<br>Student will councel minimum of 2 parents/caretakers about gene sampling, gene therapy and stem cell therapy. They will document their experience and challenges in their logbook. (Duration - 2hrs)<br>OR<br>Each student will review journal articles to study recent advancements in gene and stem cell therapy for specific disorders like muscular dystrophy or beta-thalassemia. Teacher will facilitate discussions focusing on potential of these therapies for prevention and cure. (Duration-2 hrs) |

| Modular Assessment | |
|---|---|
| **Assessment method** | **Hour** |
| Instructions - Conduct a structured Modular assessment. Assessment will be for 50 marks. Keep structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.<br>Role-Play Assessment- (50 Marks)<br>Instructions to Students:<br>Students will work in pairs. Each group will be assigned or choose a case scenario based on real-world dilemmas.Prepare a 5–7 minute role play simulating an interaction involving ethical or legal decision-making.<br>Scenarios<br>• A pediatrician counseling a family with a child having a genetic disorder.<br>• Handling refusal of treatment by guardians for a treatable condition.<br>• Addressing malnutrition under RBSK guidelines.<br>• Dealing with child abuse cases with mandatory reporting requirements.<br><br>Assessment Rubric:<br>• Understanding of the Topic and Scenario. (8 Marks)<br>• Integration of Legal and Ethical Aspects. (10 Marks)<br>• Application of National Health Program Components. (8 Marks)<br>• Communication Skills and Professionalism. (8 Marks)<br>• Clarity of Role Portrayal and Teamwork. (6 Marks)<br>• Problem-Solving and Decision-Making in Role. (6 Marks)<br>• Time Management and Engagement. (4 Marks)<br><br>Assessment Method:<br>• Performed in class or clinical skills lab.<br>• Faculty assessors use the rubric during the performance.<br>• Optional debrief or Q&A for justification after the role play.<br><br>OR<br>Any practical in converted form can be taken for assessment. ( 25 Marks) | 4 |

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| AND<br>Any of the experiential as portfolio/ refelections / presentations can be taken as assessment. ( 25 Marks) | |

**Table 4 : Practical Training  Activity**

| Practical No | Practical name | Hours |
|---|---|---|
| **1.1** | Assessment of 'Samvardhana' using Anguli Pramana Parikshana | 2 |
| **1.2** | History Taking and General Physical Examination | 2 |
| **1.3** | Examination of Pranavaha Srotas (Respiratory System) | 2 |
| **1.4** | Examination of Annavaha-Pureeshavaha Srotas (Gastro-intestinal System) | 2 |
| **1.5** | Examination of the Mamsavaha- Asthivaha Srotas (Musculoskeletal System). | 2 |
| **1.6** | Examination of Mutravaha-Shukravaha Srotas (Genitourinary System). | 1 |
| **1.7** | Examination of Nadi Samsthana /Vata-Nadi vaha Srotas (Central Nervous System) | 2 |
| **1.8** | Clinical Examination based on Tridosha Siddhant. | 2 |
| **1.9** | Routine Laboratory Investigations (blood, urine and stool). | 2 |
| **1.10** | Ashta Sthana Pariksha- Demonstration | 1 |
| **1.11** | Stanya Pariksha: Demonstration and interpretation. | 1 |
| **1.12** | Lumbar Puncture- Demonstration | 1 |
| **2.1** | Examination of newborn at birth | 2 |
| **2.2** | Demonstration and interpretation of Neonatal Reflexes. | 2 |
| **2.3** | Daily Neonatal Examination and Monitoring. | 3 |

| | | |
|---|---|---|
| **2.4** | Gestational Age Assessment and its Significance. | 1 |
| **2.5** | Preparation for Newborn Reception | 2 |
| **2.6** | Newborn Care Tools and Medications | 2 |
| **2.7** | Navajata Shishu Paricharya-Routine Newboen Care. | 1 |
| **2.8** | Navajata Shishu Paricharya- Initial Steps of New born Resuscitation | 2 |
| **2.9** | Kangaroo Mother Care | 1 |
| **2.10** | Jatakarma Samskara: Procedure, Purpose & Benefits | 2 |
| **2.11** | Navjat Shishu Paricharya | 2 |
| **2.12** | Monitoring and assessment High-Risk Neonates | 3 |
| **2.13** | Monitoring high risk (Twin, LBW,VLBW,ELBW,)Neonates | 2 |
| **2.14** | Stanya Pariksha and its Clinical Interpretation | 1 |
| **2.15** | Identification and Management of Breastfeeding Issues | 2 |
| **2.16** | Feeding Techniques for Diverse Infant Conditions | 2 |
| **3.1** | Assessment of Samvardhana (Growth and Development) and Deviations | 2 |
| **3.2** | Assessment of Growth Variations | 1 |
| **3.3** | Anthropometric Measurement | 1 |
| **3.4** | Fenton Growth Chart in Preterm Assessment | 2 |
| **3.5** | Growth Assessment with IAP & WHO Charts | 2 |
| **3.6** | Developmental Screening Tests | 2 |
| **3.7** | Behavioural Screening tests | 1 |

| | | |
|---|---|---|
| **3.8** | Sexual Maturity Rating Scale | 2 |
| **3.9** | Hearing and Vision Test | 1 |
| **3.10** | Samskaras- Part I | 2 |
| **3.11** | Samskara- Part II | 2 |
| **3.12** | Psychological Assessment and Manas Prakriti Evaluation in Children | 2 |
| **4.1** | Breastfeeding Techniques and Challenges in Neonates | 3 |
| **4.2** | Feeding Techniques and Weaning Practices | 2 |
| **4.3** | Fluid Therapy Management in Neonates | 2 |
| **4.4** | Stanyajanana and Stanyashodhana for Lactation | 1 |
| **4.5** | Vayanusar Poshana(Age and Prakriti-Specific Diet Planning) | 2 |
| **4.6** | Tools for Assessing Kuposhana (Malnutrition) | 3 |
| **4.7** | Pathyahara-Based Diet Preparation | 2 |
| **4.8** | Immunopharmacological Interventions for Childhood Vyadhikshamatva (Immunity) | 3 |
| **4.9** | Bala Rasayana Therapy. | 4 |
| **4.10** | Swarna Prashana - Preparation and Administration. | 2 |
| **4.11** | Vaccine Management Skills | 4 |
| **4.12** | Immunization Programmes at Community Level | 2 |
| **5.1** | Constructive Blue print for Bala Panchakarama Unit | 2 |
| **5.2** | Samsarjana Karma in Children. | 1 |
| **5.3** | Bahya Snehana | 3 |

| | | |
|---|---|---|
| **5.4** | Pinda Sweda – Shastika Shali Pinda Sweda and Patra Pottali Pinda Sweda | 3 |
| **5.5** | Vamana Karma in Children | 4 |
| **5.6** | Virechana Karma in Pediatric Practice | 2 |
| **5.7** | Basti Karma | 5 |
| **6.1** | Nasya Karma in Children | 4 |
| **6.2** | Moordhni Taila. | 3 |
| **6.3** | Bahya Basti Procedures (Greeva Basti, Manya Basti, Kati Basti, Janu Basti) | 4 |
| **6.4** | Kriya Kalpas in Pediatric Practice (Aschyotana, Seka, Anjana, putapaka, Tarpana). | 4 |
| **6.5** | Adapted Panchkarma for Developmental Disabilities | 5 |
| **7.1** | National Health & Nutritional Programs | 2 |
| **7.2** | Application of Regulatory laws & acts in Clinical Practice. | 2 |
| **7.3** | Challenges and Opportunities in Kaumarabhritya | 2 |
| **7.4** | Genetic Counseling. | 2 |
| **7.5** | Pedigree Analysis and Linkage analysis | 2 |
| **7.6** | Genetic Imprinting | 2 |
| **7.7** | Role of epigenetics in prevention of genetic disorder. | 3 |
| **7.8** | Gene Sampling, Gene and Stem cell Therapy | 5 |

**Table 5 : Experiential learning Activity**

| Experiential learning No | Experiential name | Hours |
|---|---|---|
| **1.1** | Examination of Sick Child | 2 |
| **1.2** | History Taking and General Examination | 3 |
| **1.3** | Examination of Pranavaha Srotas (Respiratory System). | 2 |
| **1.4** | Examination of the Cardiovascular System. | 2 |
| **1.5** | Examination of Annavaha-Pureeshavaha Srotas (Gastro-intestinal system). | 3 |
| **1.6** | Examination of the Mutravaha-Shukravaha Srotas (Genitourinary System). | 2 |
| **1.7** | Examination of the  Mamsavaha -Asthivaha Srotas (Musculo-Skeletal System). | 2 |
| **1.8** | Examination of the Vata-Nadi vaha Srotas (Central Nervous System). | 3 |
| **1.9** | Tridosha Siddhant -Based Pediatric Examination | 2 |
| **1.10** | Advising and Interpreting Diagnostic Tests | 2 |
| **1.11** | Ashta Sthan Pariksha | 1 |
| **1.12** | 'Stanya-Pariksha' | 2 |
| **2.1** | Evaluation of Newborn Reflexes. | 2 |
| **2.2** | Daily Neonatal Examination, Monitoring and Documentation. | 3 |
| **2.3** | Assessment of Gestational Age and its Significance | 2 |
| **2.4** | Examination of Neonate at Discharge and Counselling for Home Care. | 2 |
| **2.5** | Preparation for Newborn Reception | 3 |
| **2.6** | Kangaroo Mother Care | 4 |

| | | |
|---|---|---|
| **2.7** | Initial Steps of Resuscitation | 4 |
| **2.8** | Surya Rashmi Chikitsa and Chandra Darshana/Surya Darshan | 2 |
| **2.9** | Dhoopana and Rakshakarma in Newborn Care | 2 |
| **2.10** | Neonatal Growth Assessment & Early Intervention | 3 |
| **2.11** | High-Risk Neonate Assessment | 4 |
| **2.12** | Matru Aahar-Vihaar for Infant Health | 4 |
| **2.13** | Maternal Guidance in Infant Feeding | 4 |
| **3.1** | Assessment of 'Samvardhana' Growth and Development | 2 |
| **3.2** | Anatomical and Physiological variations of growth in children. | 2 |
| **3.3** | Anthropometric Assessments | 2 |
| **3.4** | Fenton Growth Chart and its plotting. | 3 |
| **3.5** | Growth Assessment with IAP & WHO Charts and Prakriti Analysis | 1 |
| **3.6** | Assessment of Dental Development and Age | 1 |
| **3.7** | SMR Assessment and Parental Counseling | 1 |
| **3.8** | Hearing and Vision Screening Test | 2 |
| **3.9** | Behavioural Screening Tests | 3 |
| **3.10** | Samskara- Part III | 2 |
| **3.11** | Samskara- Part IV | 2 |
| **3.12** | Psychological Screening & Manas Prakriti Assessment | 3 |
| | | |

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|---|---|---|
| **3.13** | Satwavajaya Chikitsa | 2 |
| **4.1** | Counseling lactating mothers on Breastfeeding Challenges | 3 |
| **4.2** | Alternative feeding, complementary feeding and Weaning Practices. | 3 |
| **4.3** | Breast Milk Banking and Fortification in Neonatal Care. | 3 |
| **4.4** | Diet Plans: Pathyahara, Nutrition & Palatability | 2 |
| **4.5** | Significance of Vayanusara Poshana in 'Samvardhana' | 2 |
| **4.6** | Impact of Feeding Practices on Child Nutrition | 2 |
| **4.7** | Cultural and Ethical issues in Child Nutrition | 3 |
| **4.8** | Assess and Counsel on Immunodeficiency Conditions | 2 |
| **4.9** | Immuno-Pharmacological Intervention | 5 |
| **4.10** | Bala Rasayana | 3 |
| **4.11** | Swarna Prashana Benefits Counselling | 4 |
| **4.12** | Key Aspects of Safe Immunization | 4 |
| **4.13** | Safe Vaccination and AEFI monitoring | 3 |
| **5.1** | Setting Up a Child-Friendly Bala Panchakarma Unit | 2 |
| **5.2** | Dhoopana Karma in Neonate and Pediatric care | 2 |
| **5.3** | Bahya Snehana Karma | 4 |
| **5.4** | Udwartana in Children | 2 |
| **5.5** | Swedana Karma | 3 |
| **5.6** | Pinda Sweda | 2 |

| | | |
|---|---|---|
| **5.7** | Samsarjana krama in Panchkarma | 3 |
| **5.8** | Vamana Karma in Pediatric Practice | 3 |
| **5.9** | Basti Karma. | 3 |
| **5.10** | Gudavarti Prayoga in Pediatric Practice. | 2 |
| **6.1** | Nasya Karma in Children | 4 |
| **6.2** | Nasya Karma- Part II | 3 |
| **6.3** | Moordhni Taila (Shirodhara, Shiro pichu, Shirolepa, Shiroabhyanga, Shiro Basti) in Children | 4 |
| **6.4** | Application of Lepa in Children. | 3 |
| **6.5** | Kriya Kalpa in Children | 3 |
| **6.6** | Miscelleneous Procedures (Pichu, Thalam, Gandoosha, Kavala, Karnapoorana). | 3 |
| **6.7** | Panchakarma Care for Developmental Disabilities.(e.g., a child with cerebral palsy or autism) | 3 |
| **6.8** | Anushastra karma in Pediatric Practice | 3 |
| **7.1** | National Health & Nutritional Programs | 7 |
| **7.2** | Regualtory Laws and Acts (Neonatal, Infantile and Pediatric) | 4 |
| **7.3** | Challenges and Opportunities of Kaumarabhritya in Community Health | 3 |
| **7.4** | Counseling on Preventive Genetics and Risk Assessment | 3 |
| **7.5** | Epigenetics and its role in prevention of genetic disorder | 3 |
| **7.6** | Gene Sampling, Gene and Stem cell Therapy | 6 |

**Table 6 : Assessment Summary: Assessment is subdivided in A to H points**

### 6 A : Number of Papers and Marks Distribution

| Subject Code | Paper | Theory | Practical | Total |
|---|---|---|---|---|
| AYPG-AB-KB | 1 | 100 | 200 | 300 |

### 6 B : Scheme of Assessment ( Formative and Summative Assessment)

### Credit frame work

AYPG-AB-KB consists of 7 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 Hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

**Formative Assessment :**Module wise Assessment:will be done at the end of each module. Evaluation includes learners active participation to get Credits and Marks. Each Module may contain one or more credits.
**Summative Assessment:**Summative Assessment (University examination) will be carried out at the end of Semester II.

### 6 C : Calculation Method for Modular Grade Points (MGP)

| Module Number & Name (a) | Credits (b) | Actual No. of Notional Learning Hours (c) | Attended Number of notional Learning hours (d) | Maximum Marks of assessment of modules (e) | Obtained Marks per module (f) | MGP =d* f/c*e*100 |
|---|---|---|---|---|---|---|
| M1. Clinical Pediatrics | 2 | 60 | | 50 | | |
| M2. Navajata Shishu Pareeksha Evam Paricharya (Examination and Care of newborn) | 3 | 90 | | 75 | | |
| M3. Bala Samvardhana evam Mano Vigyana - Child Growth, Development and Psychology | 2 | 60 | | 50 | | |
| M4. Shishu evam Bala poshana and Vyadhi Kshamatwa (Child nutrition and Immunity) | 3 | 90 | | 75 | | |
| M5. Bala Panchakarma-I | 2 | 60 | | 50 | | |
| M6. Bala Panchakarma-II | 2 | 60 | | 50 | | |
| M7. Child Health Programmes, Regulatory Laws and ethics of Genetics | 2 | 60 | | 50 | | |
| MGP = ((Number of Notional learning hours attended in a module) X (Marks obtained in the modular assessment ) / (Total number of Notional learning hours in the module) X (Maximum marks of the module)) X 100 | | | | | | |

## 6 D : Semester Evaluation Methods for Semester Grade point Average (SGPA)

SGPA will be calculated at the end of the semester as an average of all Module MGPs. Average of MGPS of the Semester For becoming eligible for Summative assessment of the semester, student should get minimum of 60% of SGPA

**SGPA = Average of MGP of all modules of all papers = add all MGPs in the semester/ no. of modules in the semester**

**Evaluation Methods for Modular Assessment**

| A<br>S.No | B<br>Module number and Name | C<br>MGP |
|---|---|---|
| 1 | M1.Clinical Pediatrics | C1 |
| 2 | M2.Navajata Shishu Pareeksha Evam Paricharya (Examination and Care of newborn) | C2 |
| 3 | M3.Bala Samvardhana evam Mano Vigyana - Child Growth, Development and Psychology | C3 |
| 4 | M4.Shishu evam Bala poshana and Vyadhi Kshamatwa (Child nutrition and Immunity) | C4 |
| 5 | M5.Bala Panchakarma-I | C5 |
| 6 | M6.Bala Panchakarma-II | C6 |
| 7 | M7.Child Health Programmes, Regulatory Laws and ethics of Genetics | C7 |
| | **Semester Grade point Average (SGPA)** | (C1+C2+C3+C4+C5 +C6+C7) / Number of modules(7) |

| S. No | Evaluation Methods |
|---|---|
| 1. | Method explained in the Assessment of the module or similar to the objectives of the module. |

## 6 E : Question Paper Pattern

**MD/MS Ayurveda Examination**
**AYPG-AB-KB**
**Sem II**

**Time:** 3 Hours ,**Maximum Marks:** 100
INSTRUCTIONS: All questions compulsory

| | | Number of Questions | Marks per question | Total Marks |
|---|---|---|---|---|
| Q 1 | Application-based Questions (ABQ) | 1 | 20 | 20 |
| Q 2 | Short answer questions (SAQ) | 8 | 5 | 40 |
| Q 3 | Analytical based structured Long answer question (LAQ) | 4 | 10 | 40 |
| | | | | 100 |

**6 F : Distribution for summative assessment (University examination)**

| S.No | List of Module/Unit | ABQ | SAQ | LAQ |
|---|---|---|---|---|
| **(M-1)Clinical Pediatrics (Marks: Range 5-20)** | | | | |
| 1 | **(U-1)** Shishu evam Bala Pareekshana (Examination of healthy and sick Child) | Yes | Yes | No |
| 2 | **(U-2)** Srotas Parikshana (Systemic Examination) - I | No | Yes | Yes |
| 3 | **(U-3)** Srotas Parikshana (Systemic Examination) - II | Yes | Yes | Yes |
| 4 | **(U-4)** Srotas Parikshana (Systemic Examination) -III | No | Yes | No |
| 5 | **(U-5)** Clinical Application of Tridosha Siddhant in Pediatric Clinical Practice | No | Yes | No |
| 6 | **(U-6)** Essential Investigations | No | Yes | Yes |
| **(M-2)Navajata Shishu Pareeksha Evam Paricharya (Examination and Care of newborn) (Marks: Range 5-20)** | | | | |
| 1 | **(U-1)** Navajata Shishu Pariksha (Examination of Newborn) | Yes | Yes | Yes |
| 2 | **(U-2)** Preparation for receiving the newborn | No | Yes | No |
| 3 | **(U-3)** Navajata Shishu Paricharya (Neonatal Care)-I | Yes | Yes | Yes |
| 4 | **(U-4)** Navajata Shishu Paricharya (Neonatal Care)- II | No | Yes | Yes |
| 5 | **(U-5)** Care of High-Risk Neonates | No | Yes | Yes |
| 6 | **(U-6)** Breast feeding | Yes | Yes | Yes |
| **(M-3)Bala Samvardhana evam Mano Vigyana - Child Growth, Development and Psychology (Marks: Range 5-20)** | | | | |
| 1 | **(U-1)** Samvardhana (Physiology of Growth & Development) | Yes | Yes | Yes |
| 2 | **(U-2)** Assessment of Growth & Development- Part I | Yes | Yes | No |
| 3 | **(U-3)** Assessment of Growth & Development- Part II | Yes | Yes | Yes |
| 4 | **(U-4)** Clinical and Scientific Relevance of Samskara - I | No | Yes | No |
| 5 | **(U-5)** Clinical and Scientific Relevance of Samskara – II | No | Yes | Yes |
| 6 | **(U-6)** Bala Mano Vigyana (Child Psychology) | No | Yes | Yes |
| **(M-4)Shishu evam Bala poshana and Vyadhi Kshamatwa (Child nutrition and Immunity) (Marks: Range 5-20)** | | | | |
| 1 | **(U-1)** Shishu Poshana | Yes | Yes | Yes |
| 2 | **(U-2)** Bala Poshana | No | Yes | Yes |
| 3 | **(U-3)** Vyadhikshamatva (Immunity) - I | No | Yes | Yes |
| 4 | **(U-4)** Vyadhikshamatva Vardhanopaya (Immune enhancing methods) | Yes | Yes | Yes |

| | | | | |
|---|---|---|---|---|
| 5 | **(U-5)** Vaccination | Yes | Yes | Yes |
| **(M-5)Bala Panchakarma-I (Marks: Range 5-20)** | | | | |
| 1 | **(U-1)** Bala Panchakarma Unit-Principles and Practices. | Yes | Yes | Yes |
| 2 | **(U-2)** Snehana and Rukshana Karma | Yes | Yes | Yes |
| 3 | **(U-3)** Swedana Karma | Yes | Yes | Yes |
| 4 | **(U-4)** Vamana and Virechana Karma | Yes | Yes | Yes |
| 5 | **(U-5)** Basti Karma | Yes | Yes | Yes |
| **(M-6)Bala Panchakarma-II (Marks: Range 5-20)** | | | | |
| 1 | **(U-1)** Nasya Karma | Yes | Yes | Yes |
| 2 | **(U-2)** Dhara , Bahya Basti and Lepa | Yes | Yes | Yes |
| 3 | **(U-3)** Kriya Kalpa and Miscellaneous Procedures | No | Yes | Yes |
| 4 | **(U-4)** Panchakarma in special cases of differently abled children and Anushastra Procedures | Yes | Yes | Yes |
| **(M-7)Child Health Programmes, Regulatory Laws and ethics of Genetics (Marks: Range 5-20)** | | | | |
| 1 | **(U-1)** National Health & Nutritional Programs related to children | Yes | Yes | Yes |
| 2 | **(U-2)** Regulatory Laws and Acts | No | Yes | No |
| 3 | **(U-3)** Challenges and Opportunities in Kaumarabhritya | No | Yes | No |
| 4 | **(U-4)** Genetic Risk Assessment and ethics | No | Yes | No |
| 5 | **(U-5)** Epigenetics and its role in prevention of genetic disorder | No | No | Yes |
| 6 | **(U-6)** Gene Sampling, Gene and Stem cell Therapy | No | No | No |

## 6 G : Instruction for the paper setting & Blue Print for Summative assessment (University Examination)

### Instructions for the paper setting.

1. 100 marks question paper shall contain:-
   - Application Based Question: 1 No (carries 20 marks)
   - Short Answer Questions: 8 Nos (each question carries 05 marks)
   - Long Answer Questions: 4 Nos (each question carries 10 marks)
2. Questions should be drawn based on the table 6F.
3. Marks assigned for the module in 6F should be considered as the maximum marks. No question shall be asked beyond the maximum marks.
4. Refer table 6F before setting the questions. Questions should not be framed on the particular unit if indicated “NO”.
5. There will be a single application-based question (ABQ) worth 20 marks. No other questions should be asked from the same module where the ABQ is framed.
6. Except the module on which ABQ is framed, at least one Short Answer Question should be framed from each module.
7. Long Answer Question should be analytical based structured questions assessing the higher cognitive ability.
8. Use the Blueprint provided in 6G or similar Blueprint created based on instructions 1 to 7

**6 H : Distribution of Practical Exam (University Examination)**

| S.No | Heads | Marks |
|---|---|---|
| 1 | Long Case Evaluation - 80 marks<br><br>Domain and competency to be assessed are as follows:<br><br>1. History taking- Elicits relevant history (Developmental, nutritional, immunization, Nidana Panchaka, Prakriti etc.) (15 marks)<br><br>2. Physical examination and Provisional Diagnosis- Ashtasthana Pariksha, Dashvidha Pariksha, General and Systemic Examination. (15 marks)<br><br>3. Diagnostic Reasoning- Makes logical correlations. (10 marks)<br><br>4. Differential Diagnosis, Diagnosis and Treatment Principles. (30 marks)<br><br>5. Communication and Professionalism- Communicates with empathy to parents/caregivers, maintaining respect, ethics and professionalism. (05 marks)<br><br>6. Organisation and Clinical judgement- Demonstrates confidence, time management and logical approach. (05 marks) | 80 |
| 2 | A) Short Case - 20 marks<br><br>History and Examination - 10 marks<br><br>Differential Diagnosis and Diagnosis- 10 marks<br><br>B) Procedure- 20 marks<br><br>Perform on a patient or simulated patient. Real-time observation by faculty assessor.<br><br>C) Spotters:<br><br>Instruments (Neonatal and Pediatric) - 5 - (1 mark each)<br><br>Lab Report/Pedigree/Growth Chart Analysis- 5 (1 mark each)<br><br>Radiological Report Analysis- 5 (1 mark each)<br><br>Vaccination - 5 (1 mark each) | 60 |

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|---|---|---|
| 3 | Viva (2 examiners: 20 marks/each examiner) | 40 |
| 4 | Logbook (Activity record) | 10 |
| 5 | Practical/Clinical Record | 10 |
| **Total Marks** | | **200** |

## Reference Books/ Resources

09_Kaumarbhritya

Click here to access References and Resources

## Abbreviations

| Domain | | T L Method | | Level | |
|---|---|---|---|---|---|
| CK | Cognitive/Knowledge | L | Lecture | K | Know |
| CC | Cognitive/Comprehension | L&PPT | Lecture with PowerPoint presentation | KH | Knows how |
| CAP | Cognitive/Application | L&GD | Lecture & Group Discussion | SH | Shows how |
| CAN | Cognitive/Analysis | L_VC | Lecture with Video clips | D | Does |
| CS | Cognitive/Synthesis | REC | Recitation | | |
| CE | Cognitive/Evaluation | SY | Symposium | | |
| PSY-SET | Psychomotor/Set | TUT | Tutorial | | |
| PSY-GUD | Psychomotor/Guided response | DIS | Discussions | | |
| PSY-MEC | Psychomotor/Mechanism | BS | Brainstorming | | |
| PSY-ADT | Psychomotor Adaptation | IBL | Inquiry-Based Learning | | |
| PSY-ORG | Psychomotor/Origination | PBL | Problem-Based Learning | | |
| AFT-REC | Affective/ Receiving | CBL | Case-Based Learning | | |
| AFT-RES | Affective/Responding | PrBL | Project-Based Learning | | |
| AFT-VAL | Affective/Valuing | TBL | Team-Based Learning | | |
| AFT-SET | Affective/Organization | TPW | Team Project Work | | |
| AFT-CHR | Affective/ characterization | FC | Flipped Classroom | | |
| | | BL | Blended Learning | | |
| | | EDU | Edutainment | | |
| | | ML | Mobile Learning | | |
| | | ECE | Early Clinical Exposure | | |
| | | SIM | Simulation | | |
| | | RP | Role Plays | | |
| | | SDL | Self-directed learning | | |
| | | PSM | Problem-Solving Method | | |
| | | KL | Kinaesthetic Learning | | |
| | | W | Workshops | | |
| | | GBL | Game-Based Learning | | |
| | | LS | Library Session | | |
| | | PL | Peer Learning | | |
| | | RLE | Real-Life Experience | | |
| | | PER | Presentations | | |
| | | D-M | Demonstration on Model | | |
| | | PT | Practical | | |
| | | X-Ray | X-ray Identification | | |
| | | CD | Case Diagnosis | | |
| | | LRI | Lab Report Interpretation | | |

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|---|---|---|---|---|---|
| | | DA | Drug Analysis | | |
| | | D | Demonstration | | |
| | | D-BED | Demonstration Bedside | | |
| | | DL | Demonstration Lab | | |
| | | DG | Demonstration Garden | | |
| | | FV | Field Visit | | |
| | | JC | Journal Club | | |
| | | Mnt | Mentoring | | |
| | | PAL | Peer Assisted Learning | | |
| | | C_L | Co Learning | | |
| | | DSN | Dissection | | |
| | | PSN | Prosection | | |
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