Competency-Based Dynamic Curriculum for MD/MS SIDDHA
(PRESCRIBED BY NCISM)

தொட்டனைத் தூறும் மணற்கேணி மாந்தர்க்குக் கற்றனைத் தூறும் அறிவு

Semester III-VI
Kuzhanthai Maruthuvam
(Paediatrics)
(SUBJECT CODE : SIDPG-KM)

(Applicable from 2024-25 batch, from the academic year 2025-26 onwards until further notification by NCISM)

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PREFACE

Applied Basics of Kuzhanthai Maruthuvam, has been carefully curated to provide a comprehensive foundation in the anatomical, physiological, metabolic, and psychosocial aspects of pediatric health from both Siddha and biomedical perspectives. Beginning with embryology, fetal development, and systemic organ maturation, the text integrates Siddha principles like Mukkutram and Pancha Bootham to explain pediatric development, humor balance, and organogenesis. It elaborates on the digestive, endocrine, respiratory, cardiovascular, and musculoskeletal systems while incorporating Siddha dietary and lifestyle practices for optimizing pediatric growth and immunity. Special emphasis is placed on metabolic pathways, enzymatic activity, electrolyte regulation, and hormonal function, presenting a balanced outlook between ancient wisdom and contemporary understanding of pediatric homeostasis.

The syllabus extends further into applied pediatric diagnostics and clinical observation, covering developmental milestones, pediatric disease presentations, and Siddha-based interpretations of common symptoms such as cough, dyspnea, indigestion, seizures, and dermatological disorders. Through the modules on vital signs, anthropometric assessments, neurobehavioral screenings, and systemic examinations, students are equipped with skills essential for effective pediatric evaluation. Integrated modules bridge modern diagnostic tools like imaging, blood analysis, EEG, and genetic testing with Siddha approaches like Naadi Paritchai and Envagai Thervu, promoting a dual understanding that strengthens clinical reasoning. Additionally, pediatric pharmacology is explored through the lens of Siddha formulation principles, quality assurance, and safety in age-specific prescribing practices. Traditional external therapies including Thokkanam, Nasiyam, and Pattru are combined with physiotherapy and rehabilitative care to address developmental and neuromuscular conditions in children.

To foster holistic competence, the curriculum also introduces professionalism, ethics, pedagogy, and communication tailored for pediatric Siddha practitioners. Topics like cultural sensitivity, caregiver collaboration, team-based practice, and legal compliance in Siddha pediatric services are presented with practical relevance. The final modules highlight research methodology, therapeutic innovation, and integrative care planning—laying the groundwork for scholarly inquiry and future leadership in Siddha pediatrics. Learners are encouraged to critically apply evidence-based practice, design research studies, and develop innovative Siddha products that adhere to both traditional principles and modern regulatory standards. This compilation serves as both a learning companion and a clinical guide, empowering students to become skillful, ethical, and visionary pediatric Siddha physicians who uphold the spirit of compassionate care through integrative and culturally attuned practice.

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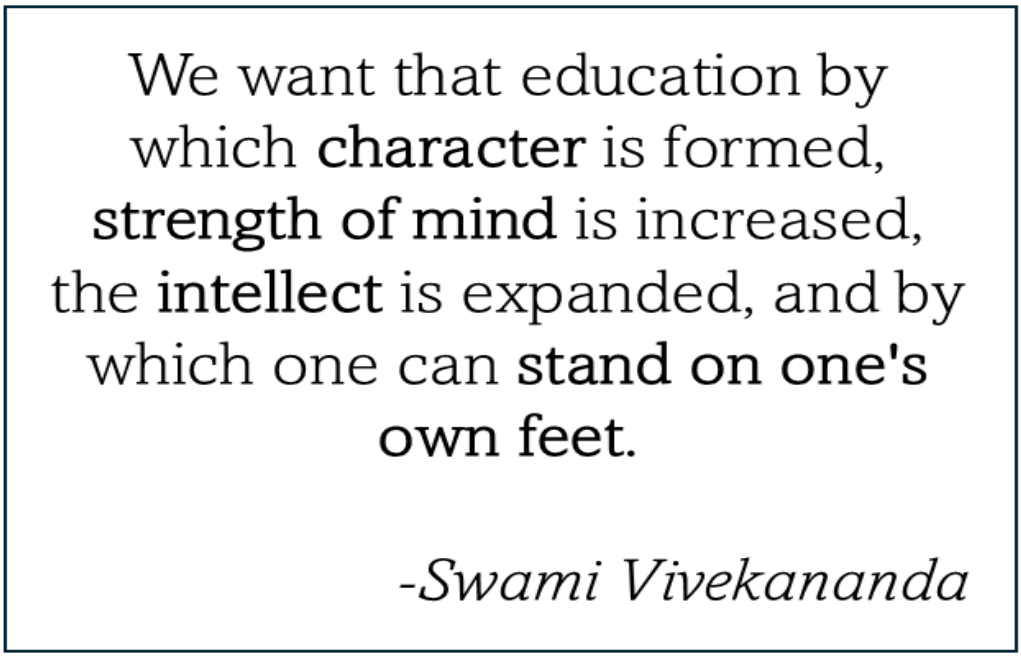

NCISM

(NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE)

Competency-Based Dynamic Curriculum MD/ MS SIDDHA

Kuzhanthai Maruthuvam (SIDPG-KM)

Summary & Credit Framework
Semester III-VI

Module Number & Name	Credits	Notional Learning Hours	Maximum Marks of assessment of modules (Formative Assessment)
Semester No : 3			
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)			
M1 ???? ??????? ?????????? ????? ??????? - Paal Unnum paruvathil Varum Noigal (Diseases of Infancy and Early Childhood)	2	60	50
M2 ????????????? ????????? ????? ????? ??????? - Kuzhanthaigalukku Undaagum Swaasa Mandala Noigal (Pediatric Respiratory Tract Disorders):	2	60	50
Paper No : 2 (Integrative pediatrics with recent advances)			
M9 ?????????????? ????? ???? ???????? ??????????? - Kuzhanthaigalukkaana Siddha Varmam Maruthuva Adippadaigal (Fundamentals of Siddha Varmam in Pediatrics)	2	60	50
M10 ?????????????? ?????? ???????? ??????? Kuzhanthaigalukkaana Varmam Maruthuva Muraigal (Paediatric Varmam Therapeutics)	2	60	50
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)			
M17 ?????????????? ????? ???????? ???? ??????? - Kuzhanthaigalukkaana Siddha Maruthuva Unavu Muraigal (Siddha Based Pediatric Nutrition)	2	60	50
M18 ???????????? ?????????? ??????? ???? ????????? ????? ???????? ???? ??????? - Kuzhanthaigalin Arogyam Matrum Noi Nilaigalil Siddha Maruthuva Unavu Muraigal (Siddha Based Dietary Practices in Pediatric Health and Diseases)	2	60	50

Paper No : 4 (Essentials in Pediatrics)			
M25 Neonatology, Immunization and Hematology	2	60	50
M26 Disorders of Respiratory System and Cardiovascular System	2	60	50
Total	**16**	**480**	**400**
Semester No : 4			
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)			
M3 ??????????? ??????? ??????? ???????????????? ??????? - Kuzhanthaigalin Iraippai Mattrum Kudalai paathikkum Noigal (Pediatric Gastrointestinal Disorders)	2	60	50
M4 ???????????? ?????? ???????, ?????? ??????? ????????? ?????????? ??????? - Kuzhanthaigalin Narampu Mandalam, Thasaigal Matrum Mootukalai Paathikkum Noigal (Pediatric Diseases of Nervous System, Musculoskeletal System and Rheumatology):	2	60	50
Paper No : 2 (Integrative pediatrics with recent advances)			
M11 ?????????????? ???????????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuvathin Adiappadaigal (Foundations and Comprehensive External Therapies for Pediatrics)	2	60	50
M12 ?????????????? ??????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuva Muraigal (Practical Applications and Integration of External Therapies Pediatrics)	2	60	50
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)			
M19 ???????????? ???? ??????? ???? ????????? ????? ????????????? ??????????? - Kuzhanthaigalin Samooga Matrum Noi Thaduppil Siddha Maruthuvathin Adippadaigal (Foundations Community and Preventive Pediatrics in Siddha)	2	60	50
M20 ?????????????? ???????? ??????? ???? ????????????? ????? ?????????? Kuzhanthaigalukkaana Maruthuva mattrum Pothu Sugatharathil Siddha Maruthuvam (Clinical Applications and Public Health in Siddha Pediatrics)	2	60	50
Paper No : 4 (Essentials in Pediatrics)			
M27 Gastrointestinal system and Renal system	2	60	50
M28 Neurological & Neuromuscular disorders, Musculoskeletal system	2	60	50
Total	**16**	**480**	**400**
Semester No : 5			
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)			

M5 ???????????? ????, ???, ????, ?????? ??????? ?????? ??????? - Kuzhanthaikalin Eeral, Kan, Kaathu, Mooku Matrum Thondai Noigal (Pediatric Disorders of Liver, Spleen, Eye, Ear, Nose, Tongue and Throat)	2	60	50
M6 ?????????????? ????????? ?????????????, ???????????? ?????? ??????? ????? ??????? - Kuzhanthaigalukku Undaagum Pirappuruppu, Siruneerpaathai Thottru Matrum Thaapitha Noigal (Pediatric Genito-Urinary Tract Disorders and Infective/Inflammatory Diseases in Children)	2	60	50
Paper No : 2 (Integrative pediatrics with recent advances)			
M13 ??????? ???? ?????????????? ??????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Virivana Maruthuva Muraigal (Comprehensive Management for Special Children)	2	60	50
M14 ??????? ???? ?????????????? ???????????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Orunginaintha Maruthuva Muraigal (Integrated Management for Special Children)	2	60	50
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)			
M21 ?????????????? ????? ?????????? - Kuzhanthaigalukkaana Siddha Marunthiyal (Siddha Pharmacology for Pediatrics)	2	60	50
M22 ?????????????? ??????? ???????????? ??????? ???????? ??????? Kuzhanthaigalukkaana Marunthu Seimuraigal Mattrum Sikitchai Muraigal (Siddha Pharmaceutics and Therapeutics for Pediatrics	2	60	50
Paper No : 4 (Essentials in Pediatrics)			
M29 Rheumatology and Infectious diseases	2	60	50
M30 Dermatological disorders, Endocrinesystem & Reproductive system	2	60	50
Total	**16**	**480**	**400**
Semester No : 6			
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)			
M7 ???? ??????? Thol Noigal (Pediatric Dermotological Disorders)	2	60	50
M8 ????????? ??????? ??????? ????? ????????? ???????? - Kudarpuzhu Noigal Matrum Parpala Noigalin Thoguppu (Worm infestations and other Pediatric disorders)	2	60	50
Paper No : 2 (Integrative pediatrics with recent advances)			
M15 ???????????? ???? ??????? ???? ??????????????	2	60	50

??????? ????? ??????? Kuzhanthaigalin Udal Matrum Manam Arogiyathirkana Siddhar Yoga Muraigal (Pediatric Yoga for Physical and Mental Development)			
M16 ???????????? ???? ???????????? ??????? ????? ??????? Kuzhanthaigalin Noi Nilaigalukkana Siddhar Yogam Muraigal (Therapeutic Siddhar Yogam for Pediatric Disorders)	2	60	50
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)			
M23 ??????? ????? ???????? ?????? ????????? ??????? ????????????? Kuzhanthaigal Siddha Maruthuvamanaigalai Niruvuthal Matrrum Nirvagithal (Establishing and Managing Pediatric Siddha Hospitals)	2	60	50
M24 ?????? ???????? ????? ??????? ?????????????? ????? ????????? ??????? ???????????Thozhil Munaivil Siddha Kuzhanthai Maruthuvathirkana Puthiya Ukthigal and Vaipugal (Innovation and Oppertunities in Siddha Pediatric Entrepreneurship)	2	60	50
Paper No : 4 (Essentials in Pediatrics)			
M31 Oncology and Metabolic disorders	2	60	50
M32 Ear, Nose and Throat and Dental Disorders and Ophthalmology	2	60	50
Total	**16**	**480**	**400**
Grand Total	**64**	**1920**	**1600**

Credit frame work

SIDPG-KM consists of 32 modules totaling 64 credits, which correspond to 1920 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 Siddha 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. Each paper has 16 credits and each semester covers 16 credits across 4 papers. In case of difficulty and questions regarding the curriculum, write to syllabus24sid@ncismindia.org.

Credit Analysis Overview

Sem/Paper	Paper No 1	Paper No 2	Paper No 3	Paper No 4	Credits
Semester 3	M-1 | 2 Crs M-2 | 2 Crs	M-9 | 2 Crs M-10 | 2 Crs	M-17 | 2 Crs M-18 | 2 Crs	M-25 | 2 Crs M-26 | 2 Crs	**16**
Semester 4	M-3 | 2 Crs M-4 | 2 Crs	M-11 | 2 Crs M-12 | 2 Crs	M-19 | 2 Crs M-20 | 2 Crs	M-27 | 2 Crs M-28 | 2 Crs	**16**

Semester 5	M-5 | 2 Crs M-6 | 2 Crs	M-13 | 2 Crs M-14 | 2 Crs	M-21 | 2 Crs M-22 | 2 Crs	M-29 | 2 Crs M-30 | 2 Crs	**16**
Semester 6	M-7 | 2 Crs M-8 | 2 Crs	M-15 | 2 Crs M-16 | 2 Crs	M-23 | 2 Crs M-24 | 2 Crs	M-31 | 2 Crs M-32 | 2 Crs	**16**
Credits	**16**	**16**	**16**	**16**	**64**

<table>
<tr><td colspan="6">Semester VI University examination</td></tr>
<tr><td colspan="3">Theory</td><td colspan="3">Practical*</td></tr>
<tr><td>Paper</td><td>Marks</td><td>Total</td><td>Practical Heads</td><td>Marks</td><td>Total</td></tr>
<tr><td rowspan="2">Paper -1</td><td rowspan="2">100</td><td rowspan="9">400</td><td>Long case or procedure/Major practical as applicable</td><td>100</td><td rowspan="9">400</td></tr>
<tr><td>Short case or procedure/Minor practical</td><td>50</td></tr>
<tr><td rowspan="2">Paper -2</td><td rowspan="2">100</td><td>Spotters</td><td>50</td></tr>
<tr><td>Assessing teaching ability</td><td>25</td></tr>
<tr><td rowspan="2">Paper -3</td><td rowspan="2">100</td><td>Assessing presentation skills</td><td>25</td></tr>
<tr><td># Viva (4 examiners: 25 marks/each examiner)</td><td>100</td></tr>
<tr><td rowspan="2">Paper -4</td><td rowspan="2">100</td><td>Logbook (Activity record)</td><td>25</td></tr>
<tr><td>Practical/Clinical Record</td><td>25</td></tr>
<tr><td colspan="6">Semester VI University examination – 800 Marks</td></tr>
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* Details in 6H table, #No separate marks for dissertation viva.

Course Code and Name of Course

Course code	Name of Course
SIDPG-KM	Kuzhanthai Maruthuvam (Paediatrics)

Table 1 : Course learning outcomes and mapped Program learning outcomes

CO No	A1 Course learning Outcomes (CO) SIDPG-KM At the end of the course SIDPG-KM, the students should be able to-	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Demonstrate expertise and integrate personalized holistic care in diagnosing and treating pediatric illnesses using Siddha principles.	PO1,PO2
CO2	Apply scientific tools in conjunction with Siddha techniques for precise pediatric health assessments.	PO2,PO5
CO3	Develop proficiency in specialized Siddha pediatric therapies and procedures	PO2,PO5
CO4	Lead public health initiatives for preventive pediatric care aligned with national and global health policies applying Siddha principles.	PO3,PO7
CO5	Conduct interdisciplinary, multidisciplinary and transdisciplinary research to generate evidence-based Siddha pediatric management.	PO4,PO7,PO8
CO6	Developing entrepreneurial skills to establish innovative healthcare facilities promoting Siddha pediatrics.	PO6
CO7	Enrich a mindset of lifelong learn, educate and innovate applying updated knowledge in Siddha pediatrics.	PO7
CO8	Advocate ethical, psychological, socio economic and medico legal aspects in Siddha pediatrics.	PO8

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

Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)						
Semester No : 3						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
1	**M-1 ???? ??????? ?????????? ????? ??????? - Paal Unnum paruvathil Varum Noigal (Diseases of Infancy and Early Childhood)** **This module explores foundational Siddha pediatric disorders including *Sikappu Noi, Pooppu, Pirali, Therai, Alakai,* digestive disturbances, and allergic conditions like *Sooriya Noi and Thoodam.* Emphasis is on classical classifications, etiopathogenesis, clinical features, and Siddha therapeutics integrating internal and external remedies, preventive care, and case-based neonatal and pediatric management strategies.** • **M1U1 ??????? ???? (Sikappu Noi)** 1.1.1 Sub-classifications of *Sikappu Noi*: *Pura Sikappu, Ulikappu, Santhira Sikappu, Meelaach Sikappu, SukkilaSuronithathaal Undaakum Sikappu, Patchi Sikappu, Thooshakkuri Sikappu, Kerpakkuri Sikappu, Piranthavudan Undaakum Sikappu;* clinical features and symptom patterns. 1.1.2 *Agatheesar* Classification of *Sikappu Noi*: Sixty-four classifications of *Sikappu Noi* based on origin, site, humoural predominance and clinical implications in infants and children.	2	10	20	30	60

1.1.3 Etiological Types and Prognosis of *Sikappu Noi*: Congenital, dietary, climatic, infectious, seasonal, and *kanmam* origins; classification into *Theerum and Theerathu* forms.
1.1.4 Specific Types of *Sikappu*: *Konthalac Sikappu, Karuval Sikappu, Sooriya Sikappu, Iratha Varanan Sikappu;* features and differential characteristics.
1.1.5 *Siddha* Formulations for *Sikappu Noi*: Internal and external preparations including *Kudineer, Kuzhambu, Nei,Mathirai, Chooranam, Pugai, Poochu, and Thetripoo Kashayam* with dosage forms and routes.

• **M1U2 ?????? ????, ?????, ???? ??????? ???? ???? (Pooppu, Pirali, Therai and Alakai)**

1.2.1 *Pooppu* Classification and Clinical Indicators: Six types of *Pooppu* involving periorbital swelling in neonates, with associated causative factors, clinical features and *Siddha* formulations for topical and internal use.
1.2.2 *Pirali* Types and Therapeutic Protocols: Eighteen types of *Pirali* characterized by abdominal bloating and distension in neonates, Siddha causes and interventions including external measures.
1.2.3 *Therai* Subtypes and Musculoskeletal Associations: Four major forms of *Therai* involving limb deformities or motor issues, Siddha classification and traditional manipulative therapy relevance in neonates.
1.2.4 *Alakai* Developmental Stages and Variants: Classification of *Alakai* into types based on *naazikai*, days, and years of growth, with related symptom manifestations and developmental anomalies.
1.2.5 Integrated *Siddha* Approach for Neonatal Disorders: Consolidated *Siddha* management for *Pooppu, Pirali, Therai* and *Alakai* using internal medications, *external therapies,* dietary guidance and preventive protocols.

• **M1U3 ?????, ????????, ??????? ?????, ??????? ??????? ????????? (Etchi, Meletchi, Etchil Roakam, Kuligan, and Azhukural)**

1.3.1 *Etchi and Melecchi* Classifications and Pathophysiology: Six types of *Etchi and Melecchi* with emphasis on causes, humoural imbalance, regurgitation frequency and related Siddha understanding in neonates.
1.3.2 *Etchil Roakam* Types and Salivary Disturbances: Two types of *Etchil Roakam* with characteristic salivary flow patterns, tongue coating, humoural causation and

	relevant Siddha diagnosis and remedies. 1.3.3 *Kuligan* Variants and Gastrointestinal Manifestations: Eight types of *Kuligan* with signs of indigestion, bloating, abdominal discomfort and associated Siddhainterventions like massage, internal drugs and diet. 1.3.4 *Azhukural* Presentations and Differential Diagnosis: Two to three types of *Azhukural* with clinical resemblance to colic disorders, features like persistent crying and feeding intolerance and Siddhadiagnostic clues. 1.3.5 Siddha Therapeutics for Digestive Disorders in Neonates: Siddha treatment protocols using internalmedicines, *patiyam,* and external techniques to manage *Etchi, Meletchi, Etchil Roakam, and Kuligan* in infants. • **M1U4 ????? ????, ?????? ???? ??????? ?????/????? (Sooriya Noi, Santhira Noi, and Thoodam/Thosham)** 1.4.1 Classification and Features of *Sooriya Noi and Santhira Noi*: Three types of *Sooriya Noi* and four types of *SanthiraNoi* with *kutra vinai*-based pathogenesis, symptom distribution, and timing-related allergic manifestations. 1.4.2 Classification of *Thosham and Thoodam* in Children: Eight major types, twenty-five subtypes, fifty-eight extended categories, and twelve pediatric-specific forms of inflammatory swellings with clinical significance. 1.4.3 *Siddha* Management Strategies for *Thoodam and Thosham:* Formulations such as *Kuzhambu, Poochu, Mathirai,Pugai,* and supportive dietary modifications tailored to pediatric *Thoodam* conditions. 1.4.4 Preventive and Supportive Care in *Sikappu*-Related Complications: Immuno-enhancing therapies, early detection, dietary rules, seasonal regimens and regular follow-up practices in allergic pediatric conditions. 1.4.5 Case-Based *Siddha* Protocols for Pediatric Allergic Disorders: Application of Siddha-based decision pathways for *Sooriya Noi, Santhira Noi, and Thoodam* using real-case management and outcome monitoring.					
2	**M-2 ????????????? ????????? ????? ????? ??????? - Kuzhanthaigalukku Undaagum Swaasa Mandala Noigal (Pediatric Respiratory Tract Disorders):**	2	10	20	30	60

This module focuses on Siddha understanding and management of pediatric respiratory and nutritional disorders including *Vilaachuzhiyan, Irumal, Muppirai, Kaasam, Kaayam, Ilaippu Noi, and Kanai.* Emphasis is placed on classical classifications, *Naadi*-based diagnostics, therapeutic strategies, and case-based learning to promote individualized care, disease prevention, and holistic pediatric respiratory health.

• **M2U1 ?????????? - Vilaachuziyan**

2.1.1 Classification and Clinical Features: Six subtypes of *Vilaachuzhiyan* based on *three humor* predominances, including causative factors, symptomatology and progression patterns in infants and children.

2.1.2 Siddha Diagnostic and Differentiation Tools: Diagnostic frameworks and symptom comparison with *Suram, Iyyanoi,* and other respiratory disorders.

2.1.3 SiddhaTherapeutic Approaches: Internal remedies and external modalities like *Thokkanam, Nasiyam, and Pugai* tailored for pediatric care.

2.1.4 Preventive and Supportive Measures: *Patiyam,* seasonal regimen, immune-enhancing herbal preparations and lifestyle practices for prevention and recurrence control.

2.1.5 Case-Based Clinical Application: Illustrative pediatric case discussions emphasizing *Siddha* diagnosis, personalized treatment, patient monitoring and therapeutic outcome assessment.

• **M2U2 ?????? ??????? ???????? - Irumal and Muppirai**

2.2.1 Classification and Features of *Irumal:* Three primary types of *Irumal—Vaatha Irumal, Pitha Irumal, and KabhaIrumal* with symptoms and disease progression in pediatric cases.

2.2.2 Muppirai and Chronic Cough Types: Four classifications of *Muppirai* highlighting chronicity, clinical patterns, aggravating factors and differential features compared to *Irumal.*

2.2.3 SiddhaTherapeutics for *Irumal*: Classical internal medicines, external applications, and *paatiyam* designed for pediatric *Irumal* management.

2.2.4 Management of *Muppirai* in Siddha: Comprehensive long-term care for *Muppirai* through immune-modulation, symptom control, prevention of

recurrence using integrated internal and external therapies.
2.2.5 Clinical Application through Case Analysis: Illustrative pediatric cough case scenarios demonstrating Siddha diagnostic skills, individualized treatment planning, and outcome-based monitoring.

• **M2U3 ?????, ????? ??????? ??????????? - Kaasam, Kaayam, and Ilaippu Noi**

2.3.1 Types and Features of *Kaasam:* Six types of *Kaasam—Vaatha, Pitha, Kabha, Thondha, Sannipatha, and KshaayaKaasam*—based on *Uyir Thaathukkal* variations, symptomatology, and progression in pediatric respiratory disorders.
2.3.2 Classification and Significance of *Kaayam:* Nine types of *Kaayam* covering respiratory and systemic forms, highlighting etiological factors, malnutrition indicators, and pediatric clinical implications.
2.3.3 *Ilaippu Noi* Subtypes and Etiology: Five types of *Ilaippu Noi* focus on fatigue, emaciation, poor digestion, and underlying humoral disturbances contributing to weight loss in children.
2.3.4 Comparative Analysis of Chronic Pediatric Disorders: Symptom comparison and differential diagnosis framework for *Kaasam, Kaayam, and Ilaippu,* emphasizing chronic disease identification and individualized approach.
2.3.5Siddha Management Strategies: Integrated *Siddha* treatment protocols involving internal medicines, rejuvenation therapies, dietary regulation *(Patiyam),* and supportive interventions for pediatric recovery and disease prevention.

• **M2U4 ??? ???? - Kanai Noi**

2.4.1 Classification of *Kanai Noi:* Classification of Kanai into 64 types based on Siddha literature with reference to clinical manifestations among pediatric cases.
2.4.2 Alternative Classification of *Kanai*: Classification systems of *Kanai* into 18, 24, and 15 types based on location, severity, and symptomatology, providing a holistic understanding of disease spectrum.
2.4.3 Etiological Classification and Prognosis: Causative factors of *Kanai* including congenital, humoural, environmental, and dietary triggers with distinction between *Theerum* (treatable) and *Theerathu* (non-treatable) types.
2.4.4 Therapeutics for *Kanai:* Internal formulations, external applications, and individualized Siddha treatment plans including assessment protocols for effective

	pediatric disease control. 2.4.5 Pediatric Preventive Strategies for *Kanai:* Seasonal regimens, *Patiyam* (diet), immune-modulation, and lifestyle guidance with case-based illustrations for long-term prevention and management.					
		4	**20**	**40**	**60**	**120**
Semester No : 4						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
3	**M-3 ?????????? ??????? ??????? ???????????????? ??????? - Kuzhanthaigalin Iraippai Mattrum Kudalai paathikkum Noigal (Pediatric Gastrointestinal Disorders)** **This module addresses Siddha perspectives on pediatric gastrointestinal disorders including *Kudaletram, Vayitru Valikal, Vaanthi, Kazhicchal, and Maantha Noikal.* It emphasizes traditional classifications, diagnostic frameworks, symptom analysis, and treatment protocols. Case-based learning reinforces application of internal and external therapies, dietary regimens, and preventive strategies for effective pediatric GI health management.** • **M3U1 ??????????, ????????? ???????, ????, ??????? ??????? ????? - Kudaletram, Kudalirakka Noigal, Theerai, Vikkal and Thaagam** 3.1.1 Classification of *Kudaletram and Kudalirakka Noigal* : Six types of	2	10	20	30	60

Kudaletram and seven types of *Theerai* with clinical features and disease evolution.
3.1.2 Clinical Features of Herniation and Colic: Symptomatology, underlying causes, and early indicators of pediatric herniation and colic with *Siddha* diagnostic perspectives.
3.1.3 Definition and Varieties of *Vikkal and Thaagam:* Categorization and causes of *Vikkal* (hiccup disorders) and *Thaagam* (thirst disorders) with diagnostic markers relevant to *Siddha* pediatrics.
3.1.4 Preventive *Siddha* Measures for *Kudaletram, Theerai, Vikkal,* and *Thaakam*: *Patiyam* (diet), lifestyle regulations, seasonal guidelines, and herbal prophylactics for preventiion.
3.1.5 Evaluation of Siddha Treatment Protocols: Analysis of classical formulations for *Kudaletram, Theerai, Vikkal,* and *Thaakam* with insights into treatment efficacy and clinical integration.

• **M3U2 ????????????? - ??????, ???????, ????????? ??????? ??????? - Vayitru Valikal - Vaaivu, Kunmam, Ulaimaanthai and Kaduppu**

3.2.1 Classification of *Vayitru Valigal: Vaaivu* (3 types), *Kunmam* (3 types), *Ulamaanthai* (6 types), and *Kaduppu* (3 types) with clinical features, etiopathogenesis, and Siddha classification in pediatric abdominal pain.
3.2.2 Etiology and Differential Diagnosis of Abdominal Disorders: Symptomatology, causes and differential diagnosis of *Vayitru Valikal* usingSiddhadiagnostic principles to identify complications in children.
3.2.3 Classification and Features of *Moola Noigal, Pavuthiram, and Moola Rogam*: Six types each of *Moola Noigal,Pavuthiram, and Moola Rogam* with signs, risk factors, and clinical relevance in pediatric ano-rectal conditions.
3.2.4 Siddha Diagnostic Tools and Prognostic Evaluation: Application of *Envagai Thervu* and Siddha tools for diagnosis and prognosis in *Vayitru Valikal and Moola Noikal.*
3.2.5Siddha Treatment for Abdominal and Ano-Rectal Disorders: Internal medicines, external applications, dietary regulation, and preventive Siddha strategies for pediatric abdominal and ano-rectal management.

• **M3U3 ??????, ???????? ??????? ???? ??????? ??????? - Vaanthi, Kazhicchal,mattrum adhanai saarntha noigal**

	3.3.1 Classification of *Vaanthi and Sarthal*: Three types of *Vaanthi* and five types of *Sarthal* with causative factors, clinical features, and Siddha management approaches in pediatric vomiting disorders. 3.3.2 Classification and Features of *Kazhicchal:* Thirteen, eight, and five types of *Kazhicchal* with symptom analysis, etiological factors, and Siddhadiagnostic perspectives for pediatric diarrheal disorders. 3.3.3 Specific Diarrheal Conditions in Children:*Athisaaram* (6 types), *Kiraani* (3–4 types), *Seethabethi* (4 types), and *Neerpaadu* (5 types) with unique pediatric presentations and disease manifestations. 3.3.4 Symptom Differentiation in Vomiting and Diarrheal Disorders: Comparative evaluation of overlapping symptoms between *Vaanthi and Kazhicchal* to aid in accurate diagnosis and therapeutic decision-making. 3.3.5 *Siddha* Management and Case-Based Learning: Treatment protocols using internal and external *Siddha* medicines, dietary guidelines, and real case discussions for effective pediatric care in *Vaanthi and Kazhicchal.* • **M3U4 ????? ??????? - Maantha Noigal** 3.4.1 Classification Systems of *Maantha Noigal:* Eighteen, nineteen, thirteen, eight, thirty-one, and seventeen types of *Maantha Noikal* based on *Siddha literature,* highlighting relevance for pediatric indigestion diagnosis. 3.4.2 Etiology and Prognosis in *Maantha Noigal:* Causative factors of indigestion in children and classification into *Theerum* (curable) and *Theerathu* (non-curable) forms for Siddha-based prognosis evaluation. 3.4.3 Symptomatology and Differential Diagnosis; Comparison of clinical manifestations in *Maantha Noigal* with similar gastrointestinal conditions for precise identification and appropriate Siddhatreatment. 3.4.4SiddhaTherapeutic Approaches for Indigestion: Review of internal formulations, external therapies, dietary management, and supportive Siddha *car*e for various subtypes of *Maantha Noigal.* 3.4.5 Practical Case-Based Insights in *Maantha Noigal:* Real-time pediatric cases to integrate theory with practice in diagnosis, formulation planning, monitoring, and outcome analysis in indigestion management.					

4	**M-4 ???????????? ?????? ???????, ?????? ??????? ????????? ?????????? ??????? - Kuzhanthaigalin Narampu Mandalam, Thasaigal Matrum Mootukalai Paathikkum Noigal (Pediatric Diseases of Nervous System, Musculoskeletal System and Rheumatology):** **This module explores Siddha perspectives on pediatric neurological and neuromuscular disorders including *Valippu Noi, Soolai, Baala Vaatham, and Vaatha*-related conditions. It emphasizes classical classifications, symptomatology, diagnostic tools, and integrated treatments. The module highlights internal medicines, external therapies, *Varmam, Yoga, and Paatiyam* for holistic management and functional recovery in pediatric neurology.** • **M4U1 ??????? ????, ??? ????, ????, ???????? ??????? ????????? - Valippu Noi, Vali Noi, Suzhali, Nadukkan, and Puraveechu** 4.1.1 *Valippu Noi :* Classification into 4 major types and 16 subtypes with Siddha diagnostic criteria, etiological factors, clinical features, and therapeutic interventions including internal and external treatments. 4.1.2 *Vali Noi* – Seven types of *Vali Noi* with symptomatology, siddha diagnosis, humoural involvement, and *Siddha* treatment modalities suitable for pediatric care. 4.1.3 *Puraveechu* – Five categories of *Puraveechu* based on spasm-related siddha pathogenesis, presenting symptoms in children, and Siddha therapeutic approaches focused on holistic care. 4.1.4 *Suzhali* – Four types of *Suzhali* with neuro-muscular manifestations, Siddha-based interpretation of pathophysiology, and integrated treatment plans. 4.1.5 *Nadukkan* – Seven types of *Nadukkan* characterized by tremor intensity and site, preventive strategies, curative Siddha regimens, and rehabilitative guidelines for pediatric neuromuscular health. • **M4U2 ????, ???????? ??????? ??????? - Soolai, Moorchai and Mayakkam**	2	10	20	30	60

4.2.1 *Soolai* – Classification of *Soolai* into six types with symptomatology, etiological patterns, and *Siddha*-based internal and external treatments.
4.2.2 Pediatric *Soolai* – Causative factors, clinical progression, Siddha interpretations, and integrated management protocols including supportive measures for *Soolai* in children.
4.2.3 *Moorchai* – Eight types of *Moorchai* with distinguishing signs, Siddha-based diagnosis, preventive care, and therapeutic strategies suited for pediatric patients.
4.2.4 *Baalar Mayakkam* – Four types of *Baalar Mayakkam* with classification, clinical differentiation from similar conditions, and *Siddha* therapeutic principles for comprehensive care.
4.2.5 Diagnostic Methods and Prognosis in Pediatric Neuro-Functional Disorders: Application of Siddha diagnostic tools for *Soolai, Moorchai, and Mayakkam* with prognostic insights based on timely Siddha interventions.

• **M4U3 ????????, ??????? ????? ??????? ?????????? ????? - Sura Vaadham, Akkini Vadham, Mel moochu Vadham**

4.3.1 *Sura Vaatham* – Description of pediatric *Sura Vaatham* including symptomatology, etiological factors, and Siddha-based classifications highlighting fever-related *Vatha* imbalances.
4.3.2 *Akkini Vaatham* – Classification and clinical presentation of *Akkini Vaatham* in children, focusing on digestive fire disturbances and related Siddhatherapeutic interpretations.
4.3.3 *Sura Vaatham vs. Akkini Vaatham* – Comparative analysis of *Sura Vaatham and Akkini Vaatham* with diagnostic distinctions using Siddha principles and evaluation tools.
4.3.4 *Mel Moochu Vaatham* – Stages of *Mel Moochu Vaatham*, Siddha external therapies, supportive regimens, and dietary interventions .
4.3.5 *Athisaara Vaatham* – Staging of *Athisaara Vaatham*, internal medicines, external applications and dietary regimens in Siddha pediatrics.

• **M4U4 ???????? - Baalavaatham**

4.4.1 Classification of *Baala Vaatham* – Detailed classification of *Baala Vaatham* into 8 primary types and 40 subtypes based on Siddha neurological principles and pediatric relevance.

	4.4.2 Clinical Features, Causes, and Prognosis of *Baala Vaatham:* Symptomatology, causative factors, and prognosis of various *Baala Vaatham* types with emphasis on age-specific manifestations in children. 4.4.3 Siddha Diagnostic Tools for *Baala Vaatham:* Application of *Envagai Thervu, Udal Kattugal* assessment, *Naadi*, and visual cues for diagnosis and disease staging in pediatric *Baala Vaatham.* 4.4.4 Siddha Treatment Protocols – Therapeutic modalities including Siddhainternal medicines, *Varmam techniques, Thokkanam*, and *poochu* for effective management of *Baala Vaatham.* 4.4.5 Supportive Role of *Varmam, Yoga, and Paatiyam:* Integrative use of Siddha *Varmam* therapy, *Yoga* practices, and *Paatiyam* (dietary guidance) in rehabilitation and functional improvement in pediatric neurology.					
		4	**20**	**40**	**60**	**120**

Semester No : 5

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
5	**M-5 ???????????? ????, ???, ????, ?????? ??????? ?????? ??????? - Kuzhanthaikalin Eeral, Kan, Kaathu, Mooku Matrum Thondai Noigal (Pediatric Disorders of Liver, Spleen, Eye, Ear, Nose, Tongue and Throat)** **This module covers Siddha pediatric hematological, hepatic, urinary, and tongue disorders including *Paandu, Kaamalai, Baala Pitham, and Singu Noi*. It**	2	10	20	30	60

emphasizes classical classifications, symptom analysis, *thodam* differentiation, and *Siddha* diagnostic tools. Management strategies include internal and *external treatments, Paatiyam,* preventive care, and case-based applications for comprehensive pediatric disease control.

• **M5U1 ??????, ????, ?????? ???? ??????? ?????? - Paandu, Sobai, Manjal Noi and Kaamalai**

5.1.1 Classification of *Paandu, Sobai, Manjal Noi, and Kaamalai:* Subtypes of *Paandu* (5), *Sobai* (5), *Baalar Manjal Noi* (9/1), and *Kaamalai* (7) with *thodam* basis, clinical characteristics and diagnostic importance inSiddha pediatrics.

5.1.2 Symptom Comparison in *Paandu* Types with Pale Skin Presentation: Clinical variations in pallor among *Paandu* types linked to disease progression and underlying *kutram*-specific pathophysiology.

5.1.3 Symptom Analysis in *Sobai* Types: Distinctive clinical features such as swelling, pain, systemic signs, and functional impairments associated with each type of *Sobai* in children.

5.1.4 *Manjal Noi and Kaamalai:* Comparative analysis of symptoms, disease course and *thodam* involvement in various forms of *Manjal Noi and Kaamalai* related disorders.

5.1.5 Siddha Treatments for *Paandu, Sobai, and Kaamalai:* Therapeutic guidelines using internal medicines, *Patiyam* and supportive care based on classical Siddha *texts* for effective pediatric management.

• **M5U2 ????? ?????, ????? ??? ????? ??????? ????? ????? - Ullu Rogam, Kaaral Sura Rogam and Kaaral Rogam**

5.2.1 Classification of *Ullu Rogam, Karal Sura Rogam and Karal Rogam:* Subtypes of *Ullu Rogam* (5), *Karal SuraRogam* (4/6), and *Karal Rogam* (14) with focus on pathogenesis, humour classification and pediatric relevance.

5.2.2 Comparative Symptoms of *Karal Sura Rogam and Karal Rogam*: Symptom analysis and differentiation between *Karal Sura Rogam and Karal Rogam* based on clinical signs and Siddha diagnostic principles.

5.2.3 Treatment Approaches for *Ullu Rogam in* Siddha: Management strategies using internal medicines, external therapies and *Patiyam*.

	5.2.4 Siddha Treatments for *Karal Rogam and Karal Sura Rogam:* ClassicalSiddha formulations, dosage patterns and therapeutic procedures for liver-based conditions in children. 5.2.5 Preventive Measures and Case-Based Learning: Preventive guidelines, seasonal care, dietary planning, and pediatric case examples to enhance clinical proficiency. • **M5U3 ?????????? - Baala Pitham** 5.3.1 Classification of *Baala Pitham:* Eleven and twelve types of *Baala Pitham* with focus on pathogenesis, clinical presentations, and Siddha diagnostic frameworks in pediatric conditions. 5.3.2 Siddha Management and Therapeutics for *Baala Pitham:* Classical internal medicines, dietary protocols, and rejuvenative Siddha therapies for effective treatment of *Baala Pitham.* 5.3.3 Comparative Symptom Patterns in *Pitha* Disorders: Differential symptom expression in pediatric *Pitha*-related conditions enabling clinical distinction among subtypes. 5.3.4 Case-Based Discussions on Pediatric *Pitha Noigal:* Interactive analysis of pediatric cases with *Baala Pitham* for application of Siddhadiagnostics, treatment planning, and outcome evaluation. • **M5U4 ?????????? - Singu Noi** 5.4.1 Definition and Classification of *Singu Noi:* Definition, three types of *Singu Noi* classified based on *Vaatha, Pitha,* and *Kabha* predominance with relevance to pediatric tongue disorders. 5.4.2 *Vaatha Singu Noi:* Presentation of dryness, stiffness, and movement limitation in *Vaatha Singu* with Siddhadiagnostic indicators. 5.4.3 *Pitha Singu Noi:* Inflammatory changes, ulcers, and erythema characteristic of *Pitha Singu*, highlighting progression and complications. 5.4.4 *Kabha Singu Noi*: Mucosal coating, heaviness, and swelling seen in *Kabha Singu* with emphasis on differentiation and *thodam* analysis. 5.4.5 Siddha Management of Pediatric *Singu Noi:* Internal and external treatment approaches including gargles etc.,with evaluation of treatment outcomes.					
6	**M-6 ????????????? ????????? ?????????????, ???????????? ??????**	2	10	20	30	60

??????? ????? ??????? - Kuzhanthaigalukku Undaagum Pirappuruppu, Siruneerpaathai Thottru Matrum Thaapitha Noigal (Pediatric Genito-Urinary Tract Disorders and Infective/Inflammatory Diseases in Children)

This module elaborates Siddha approaches to pediatric genito-urinary, neurological, febrile, and eruptive conditions including *Baala Megam, Sanni Noi, Oozhi Noi,* and *Ammai Noigal.* It highlights classical classifications, symptom differentiation, *kutram*-based diagnostics, and therapeutic interventions. Emphasis is on preventive regimens, emergency care, and integrative management for holistic pediatric recovery and resilience.

• **M6U1 ??? ?????, ???? ?????, ??????? ?????, ??????? ??????????, ?????? ????? ??????? ????? ????? - Bala Megam, Anda Vatham, Moothira Kaatham, Moothira Kiricharam, Achmari Rogam and Vasthi Rogam**

6.1.1 Classification of *Baala Megam* – Five types based on urinary characteristics, systemic signs, and *thodam* influences in infants with emphasis on individualized Siddha diagnostic approach.

6.1.2 Classification of *Anda Vaatham* – Seven pediatric types affecting scrotal and testicular regions, with clinical features such as swelling, tenderness and etiological factors including trauma, *thodam* derangement, and congenital origins.

6.1.3 Classification of *Moothira Rookam – Moothira Kaatham, Moothira Kiricharam, Achmari Rookam, and VasthiRookam* based on clinical symptoms like retention, pain and bladder dysfunctions in Siddha pediatric practice.

6.1.4 Comparative Symptom Analysis – Symptom differentiation between *Baala Megam, Anda Vaatham*, and other genito-urinary or metabolic pediatric disorders to support precise Siddha diagnosis.

6.1.5 Siddha Management Protocols – Internal and external treatment regimens, dietary plans, and preventive strategies tailored to pediatric urinary and reproductive health.

• **M6U2 ????? ????, ????? ??? - Sanni Noi, Sanni Vali**

6.2.1 Classification of *Sanni Noi* and *Sanni Vali* – Twelve types of *Sanni* classified based on altered consciousness and convulsive features, with emphasis on acute presentations and emergency Siddha interventions such as *nasiyam, thylam and pugai* for pediatric stabilization.
6.2.2 Preventive Strategies in Pediatric Infectious Conditions – Siddha principles of prevention focusing on seasonal adaptation *(Kaala Maruthuvam),* diet regulation *(Patiyam),* personal hygiene, and immune-strengthening herbs for reducing infectious risks in children.
6.2.3 Holistic Management of *Sanni* Conditions – Comprehensive Siddhamanagement integrating internal formulations, external therapies, humour balancing, *Udal Kattugal* correction and supportive care for long-term relief from *Sanni Noi* and *Sanni Vali.*
6.2.4 Education and Counseling in SiddhaPediatric Care – Importance of parental awareness in recognizing early symptoms, maintaining adherence to Siddha regimen, dietary practices, and ensuring safe administration of pediatric Siddha medications at home.

• **M6U3 ??? ????, ????? - Oozhi Noi, and Suram**

6.3.1 Classification of *Oozhi Noi and Balar Suram* – Three types of *Oozhi Noi* categorized based on *kutram* predominance and symptom progression. Eight types of *Balar Suram* with etiological factors, fever stages, systemic manifestations, and relevance in Siddha pediatric practice.
6.3.2 Classification of *Nava Suram and Kudora Suram* – Nine types of *Nava Suram* and fourteen types of *Kudora Suram* described with details on onset, causation, symptomatology, and complications, aiding early Siddha-based identification and intervention.
6.3.3 Classification of *Kulir Suram and Kulircchi*– Siddha perspectives on cold-induced febrile states such as *KulirSuram and Kulircchi,* focusing on clinical features, diagnostic cues, and pediatric management approaches.
6.3.4 Comparative Features in Pediatric Fevers and Infections – Comparative analysis of symptoms among *BalarSuram, Nava Suram, Kudora Suram, and Oozhi Noi* to aid differential diagnosis and preciseSiddha treatment planning.
6.3.5 Siddha Management of Febrile and Inflammatory Pediatric Conditions—Siddha

	protocols involving internal herbal formulations, *external therapies,* and preventive care aimed at reducing fever-related complications and ensuring pediatric recovery. • **M6U4 ??????, ????? ?????? - Mannan, Balar Vaisoori** 6.4.1 Classification of *Mannan*– Eight and nine types of *Mannan* categorized based on *kutram* predominance and clinical stage. Includes differences in fever patterns, skin eruptions, and systemic disturbances relevant to pediatric Siddha diagnosis. 6.4.2 Classification of *Balar Vaisoori, Anali, Patrai Noi, and Kalloori Noi* – Types of eruptive childhood infections with clinical features, *kutra*-based etiology, disease phases, and their importance in Siddhapediatric care. 6.4.3 Complications of *Balar Vaisoori* Leading to *Balar Aliyan* – Consequences of untreated *Balar Vaisoori* including secondary infections and systemic failure manifesting as *Balar Aliyan.* Includes Siddha emergency care strategies. 6.4.4 Comparative Symptoms of Eruptive Fevers – Symptom analysis of *Mannan, Balar Vaisoori, Anali, and Kalloori Noi* focusing on rash morphology, fever, and systemic features. 6.4.5 SiddhaTreatment Protocols for *Ammai Noigal* – Internal medicines, *external therapies(Poochu, Thylam),fumigation (Pugai),* and dietary regimens for healing, complication prevention, and recovery.					
		4	**20**	**40**	**60**	**120**

Semester No : 6

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
7	**M-7 ???? ??????? Thol Noigal (Pediatric Dermotological Disorders)**	2	10	20	30	60

This module focuses on Siddha dermatological disorders in children including *Vitharpam, Vaarppu, Parangi, Ponni, Karappaan, and Kuttam*. It explores classical classifications, symptom differentiation, *thodam* influences, and personalized treatment strategies. Emphasis is placed on internal and external therapies, lifestyle modifications, and case-based learning for effective management of pediatric skin conditions.

• **M7U1 ???????? ??????? ???????? - Vitharpam and Vaarppu**

7.1.1 Classification of *Vitharpam* – Five types of *Vitharpam* characterized by intense itching, dryness, scaling, and rash patterns; classified based on *thodam* involvement, dietary habits, and environmental triggers.

7.1.2 Classification of *Vaarppu* in Children – Eight types of *Vaarppu* presenting with skin dryness, roughness, thickening, and depigmentation; categorized according to severity, anatomical distribution, and underlying *kutram* imbalance.

7.1.3 Symptom Comparison of *Vitharpam and Vaarppu* – Comparative analysis of itching, scaling, color changes, and lesion texture to differentiate clinical presentations and guide accurate Siddha diagnosis and therapeutic response.

7.1.4 Siddha Treatments for *Vitharpam and Vaarppu* – Internal formulations, external therapies, *paatiyam* and preventive regimens tailored to *Vitharpam and Vaarppu*.

7.1.5 Practical Case Discussions – Real or simulated pediatric cases focusing on *Vitharpam and Vaarppu* diagnosis, individualized Siddhatreatment protocols, patient monitoring, and outcome evaluation.

• **M7U2 ??????????, ?????? ??????? ????? - Parangi Noi, Ponni and Pilavai**

7.2.1 Classification of *Parangi Noi* – Four types of *Parangi Noi* presenting with cracked skin, chronic itching, scaling, and ulcerative lesions; classified based on *thodam* variation, lesion site, and severity.

7.2.2 Classification of *Ponni* and Subtypes – Multiple subtypes of *Ponni* characterized by pustular eruptions, hyperpigmentation, and skin thickening;

etiological links to hygiene, nutrition, and environmental factors highlighted.
7.2.3 Siddha Treatments for *Parangi Noi* – Internal detoxifying medicines, external cleansing, emollient therapies, and dietary modifications prescribed for symptom relief and prevention of complications.
7.2.4Siddha Management for *Pilavai and Ponn*i – Herbal applications, fumigation *(Pugai),* internal formulations, and *paatiyam* used to manage *Pilavai and Ponni;* focus on recurrence prevention and tissue repair.
7.2.5 Case-Based Learning in *Parangi, Ponni, and Pilavai* – Clinical case discussions for differential diagnosis, treatment planning, patient-specific Siddha interventions, and monitoring of pediatric dermatological outcomes.

• **M7U3 ??? ???????? - Bala Karappaan**

7.3.1 Classification of *Bala Karappaan – Karappaan* classified into 18, 11, and 10 types based on lesion characteristics, *thodam* predominance, seasonal triggers, and disease stage in pediatric skin conditions.
7.3.2 Classification of *Sengamaari Karappaan* – Four distinct types of *Sengamaari Karappaan* characterized by elevated, reddish, and inflamed rashes, correlated with *Pitha-Kapha* imbalance and potential for chronic inflammation.
7.3.3 Symptom Comparison Across *Karappaan* Types – Differentiation of lesion appearance, redness, exudate, itching, and aggravating factors across various *Karappaan* types for accurate Siddha-based diagnosis.
7.3.4 Siddha Treatments for Pediatric *Karappaan*– Siddha internal medicines, external applications, dietary restrictions *(Paatiyam)*, and environmental adjustments for comprehensive dermatological management.
7.3.5 Case-Based Discussions on *Karappaan*– Practical clinical sessions on pediatric *Karappaan* emphasizing *thodam* analysis, symptom interpretation, treatment protocols, and follow-up planning based on Siddhaprinciples.

• **M7U4 ??????? - Kuttam**

7.4.1 Classification of *Kapaala Kuttam* – Five types of *Kapaala Kuttam* affecting the scalp and neck with symptoms such as itching, hair loss, oozing, and boils caused by *thodam* imbalance and environmental factors.
7.4.2 Classification of Pediatric *Kuttam*– Five distinct types of *Kuttam* in children characterized by scaling, discoloration, and ulceration with potential systemic impact

	if left untreated. 7.4.3 Classification of *Mahaa Kuttam* – Seven types of *Mahaa Kuttam* involving extensive ulceration, induration, and systemic symptoms requiring intensiveSiddhainterventions. 7.4.4 Symptom Comparison in Scalp Disorders – Differentiates between clinical features of dermatitis and *MandaiSoolai*, focusing on redness, pain, oozing, and lesion distribution in pediatric cases. 7.4.5 Siddha Treatments for Head and Neck *Kuttam* – Siddhatherapeutic approaches using *internal medicines, thylam, poochu,* and detox formulations with focus on personalized *thodam* correction and long-term scalp health.					
8	**M-8 ????????? ??????? ??????? ????? ????????? ???????? - Kudarpuzhu Noigal Matrum Parpala Noigalin Thoguppu (Worm infestations and other Pediatric disorders)** **This module covers Siddha management of pediatric *Vippuruthi, Viyarvai, Vishapaakam, Sira Rogam, Amirtha Rogam, Paatha Rogam, and Kudarpuzhu Noigal.* It includes classical classifications, *thodam* analysis, therapeutic protocols, and preventive care. Emphasis is on detoxification, neuro-rehabilitation, deworming, and case-based learning to ensure holistic pediatric diagnosis, treatment, and long-term management.** • **M8U1 ??????????, ??????? ??????? ?????????? - Vippuruthi, Viyarvai and Vishapaakam** 8.1.1 Classification of *Vippuruthi* – Six types of *Vippuruthi* categorized by site, symptoms, and *thodam* origin including tumors, swellings, and systemic proliferative conditions in children. 8.1.2 Classification of *Viyarvai and Vishapaakam* – Three types each of *Viyarvai* (sweating disorders) and *Vishapaakam* (toxin-related disorders), focusing on metabolic imbalances, *thodam* derangement, and toxin manifestations in pediatric	2	10	20	30	60

health.
8.1.3 Types of *Vippuruthi* and Symptomatology – Includes ulcerative, nodular, and proliferative growths with specific symptom profiles and disease progression analyzed using Siddha nosological frameworks and diagnostic methods.
8.1.4 SiddhaTreatments for *Vippuruthi, Viyarvai, and Vishapaakam* – Internal and externalSiddha interventions and rejuvenative therapies aimed at *thodam* correction and immune enhancement.
8.1.5 Case-Based Learning for Pediatric Malignancy and Toxin Disorders – Real-life and simulated pediatric cases for practical understanding of diagnosis, Siddha therapy planning, monitoring, and outcome assessment.

• **M8U2 ??? ????? ??????? ?????? ????? -Sira Rogam and Amirtha Rogam**

8.2.1 Classification of *Sira Rogam* – Nineteen types of pediatric *Sira Rogam* covering seizures, tremors, paralysis, spasms, and neuromotor disorders classified by *thodam* dominance, clinical features, and progression stages.
8.2.2 Classification of *Amirtha Rogam*– Two major types of *Amirtha Rogam* involving pediatric brain developmental delays and cognitive dysfunctions, with classification based on etiology, *kutra* variation, and neurodevelopmental impairment.
8.2.3 Siddha Treatment for *Sira and Amirtha Rogam*– Siddha therapeutic strategies including internal formulations,*external approaches, Varmam,* dietary regulation, and supportive neuro-rehabilitative care.
8.2.4 Case-Based Learning on *Sira Rogam and Amirtha Rogam* – Practical pediatric neurological case discussions integrating Siddha diagnostics, individualized treatment protocols, and monitoring techniques for clinical outcome evaluation.
8.2.5 Preventive and Supportive Care in Pediatric Neuro Disorders – Emphasis on preventive Siddha regimens, early screening, lifestyle adjustments, and family education for improving long-term neurological health in children.

• **M8U3 ??? ????? - Paatha Rogam**

8.3.1 Classification of *Paatha Rogam* – Ten types of foot-related disorders in children, involving pain, swelling, gait disturbances, and localized skin changes, classified based on *thodam* imbalances and Siddha nosology.
8.3.2 Classification of *Paatha Silerpanam* – Detailed classification into 21, 4, and 20

	types of *Paatha Silerpanam*, focusing on lesion morphology, distribution, intensity, and associated systemic symptoms relevant toSiddhadiagnosis. 8.3.3 SiddhaTherapeutics for *Paatha* Disorders – Internal and external treatment protocols and foot-specific regimens, emphasizing inflammation reduction, tissue repair, and *thodam* correction. 8.3.4 Case-Based Clinical Learning on *Paatha Rogam* – Structured pediatric foot disorder case studies for developing diagnostic accuracy, therapy selection, and monitoring effectiveness using traditionalSiddha approaches. 8.3.5 Preventive and Supportive Foot Care in Pediatrics – Guidelines on preventive care, footwear hygiene, dietary practices, and seasonal regimens for minimizing recurrence and enhancing pediatric foot health. • **M8U4 ????????? ??????? - Kudarpuzhu Noigal** 8.4.1 Classification of *Kudarpuzhu* – Seven types of intestinal worm infestations in children based on location, symptoms like abdominal pain, diarrhea, bloating, and *thodam* predominance. 8.4.2 Classification of *Kirumi* – Four types of parasitic infections focusing on transmission, systemic manifestations, and their Siddha-based clinical identification. 8.4.3 Description of *Masari, Keeri, and Irai Noi*– Worm-specific disorders with life cycle details and associated symptoms, including *Masari, Keeri* and *Irai Noi*. 8.4.4 Comparative Symptoms of *Masari, Keeri, and Irai* – Differentiation of clinical features among *Masari, Keeri, and Irai* infestations, supporting accurate diagnosis and individualized treatment. 8.4.5Siddha Treatments for *Kudarpuzhu and Kirumi*– Internal deworming formulations, dietary regulations, preventive regimens, and follow-up strategies for effective management and prevention of recurrence.					
		4	**20**	**40**	**60**	**120**
		16	**80**	**160**	**240**	**480**
Paper No : 2 (Integrative pediatrics with recent advances)						
Semester No : 3						

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
9	**M-9 ?????????????? ????? ???? ???????? ??????????? - Kuzhanthaigalukkaana Siddha Varmam Maruthuva Adippadaigal (Fundamentals of Siddha Varmam in Pediatrics)** **This module explores the origins, classical foundations, and evolving applications of Varmam therapy in pediatrics. It covers energy concepts like *Nadi, Vayukkal, Saram,* and cosmic influences, alongside diagnostic tools, disorder classifications, and therapeutic strategies for conditions such as cerebral palsy and autism, emphasizing holistic, preventive, and integrative Siddha care.** • **M9U1 ????? ?????????? ?????? - Siddha Varmathin Varalaru - History of Siddha Varmam** 9.1.1 Origin of *Varmology* – Martial origins, healing system evolution, philosophical foundations, therapeutic shift, pediatric relevance, historical lineage. 9.1.2 Classical Texts in *Varmology – Thirumandiram, Varma Suthirangal,* Siddha *palm-leaf* manuscripts, *Varma point* classification, *vaasi* flow, energy anatomy, textual interpretations. 9.1.3 Pediatric Applications of *Varmam Therapy* – Delayed milestones, cerebral palsy, neuro-muscular disorders, behavioral concerns, pressure modulation, age-specific methods, safety considerations. 9.1.4 Regional Variations and Traditional Practices – Tamil Nadu-based practices,	2	10	20	30	60

healer-specific techniques, cultural rituals, pediatric application diversity, local *Varma* traditions.

9.1.5 Modern Adaptations and Research in *Varmology* – Integrative protocols, rehabilitation settings, clinical trials, pediatric *Varmam* modules, interdisciplinary models, public health initiatives.

• **M9U2 ???????????? ????? ?????????? ??????????? - Kuzhanthaikalin Siddha Varmathin Adippadaigal - Basic Concepts of Siddha Varmam in Pediatrics**

9.2.1 *Nadi* Concept in Pediatric *Varmam* – *E*nergy channel classification, life force distribution, pediatric physiological functions, diagnostic correlations, *Varmam point* mapping.

9.2.2 *Vayukkal* and Pediatric Health – Ten *Vayukkal types*, physiological roles, developmental milestones, *Vayu* imbalance signs, condition-specific manifestations, Siddha therapeutic relevance.

9.2.3 *Saram and Vasi* Applications – Life essence interpretation, breath regulation, physical and cognitive harmony, pediatric breath modulation, therapeutic breathing techniques.

9.2.4 *Amirtham and Visham* Balance – Dual energy principles, vitality and toxicity roles, imbalance symptoms,energy modulation in childhood care.

9.2.5 *Kona Nilaigal* and Energy Directions – Energy directional flow, spatial orientation of *Varmam*, systemic influence, procedural integration in pediatric *Varmam* therapy.

• **M9U3 ???? ???? ?????? - Varmam Anda Aatral - Varmam Cosmic Energy**

9.3.1 Cosmic Energy in Pediatric *Varmam* – *Aagayam Uyir Sakthi*, cosmic origin, energetic influence, physical and mental development,Siddhadoctrines, pediatric vitality alignment.

9.3.2 Interaction of *Varmam* Points with Cosmic Energy – Energy flow dynamics, *Varmam point* modulation, developmental phase influence, vibrational alignment, cosmic-pediatric interface.

9.3.3 Influence in Pediatric *Siddha Varmam* – Planetary positioning, cosmic timing, natal chart relevance, energetic sensitivity, pediatric healing responsiveness.

	9.3.4 Techniques for Energy Activation and Restoration – Focused stimulation, energy balancing protocols, pediatric *Varmam* correction, Siddha procedural framework, therapeutic outcomes. 9.3.5 Research Trends in Cosmic Energy and Pediatric Health – Traditional evidence, integrative clinical trials, pediatric case studies, energy medicine validation, holistic healthcare integration. • **M9U4 ???? ????????? ??????? ????????? ??????? - Varma NootkaliL Kuzhanthai Maruthuva Muraigal Pediatric Medicine in Varmam Literatures** 9.4.1 Disorder Classification – *Siddha* classification systems, neurological and behavioral disorders, developmental delays, *Varmam*-based mapping, pediatric symptomatology. 9.4.2 Therapeutic Applications – Autism spectrum disorders, cerebral palsy, motor dysfunction, sensory impairments, Varmam point selection, pressure techniques, therapeutic customization. 9.4.3 Preventive Strategies – Pediatric immune boosting, *Varmam* point activation, dietary regulations, sleep hygiene, seasonal regimens, Siddha preventive protocols. 9.4.4 Diagnosis and Prognosis – *Varmam* responsiveness, functional severity grading, treatment planning, prognostic indicators. 9.4.5 Integrated Care – Siddha internal medicines, *Varmam* stimulation synergy, chronic care optimization, integrative protocol development, long-term pediatric wellness enhancement.					
10	**M-10 ????????????? ?????? ???????? ??????? Kuzhanthaigalukkaana Varmam Maruthuva Muraigal (Paediatric Varmam Therapeutics)** **This module details practical *Varmam* therapy for pediatric conditions using vital points, compression techniques, and regional applications. It emphasizes ethical standards, clinical protocols, and therapeutic methods for gastrointestinal, respiratory, neurological, and behavioral disorders. Integrated models, Siddha-drug synergy, and multimodal approaches enhance holistic**	2	10	20	30	60

pediatric care and developmental outcomes.

• **M10U1 ???? ??????????? ?????? ??????? ????????????? - Varamam Pulligalin Vagaigal matrum Irupidngal Classification and Locations of Varmam Points**

10.1.1 Vital *Varmam* Points – *Padu Varmam, Thodu Varmam, Thattu Varmam,* spasticity management, muscular disorders, life-force centers.

10.1.2 Internal *Varmam* Points – *Ul Varmam,* chronic illness intervention, congenital defect management, systemic energy flow, deep *Varmam* stimulation, internal regulation.

10.1.3 Compression Techniques – *Odukki Varmam,* emergency care, acute symptom relief, pressure dynamics, revival methods, rapid pediatric response strategies.

10.1.4 *Aadhara Varmam* Zones – Vital organ support, systemic harmony, *Aadharam*-linked points, targeted energy flow, organ-specific *Varmam* application.

10.1.5 Regional Applications – Head, trunk, limb, neck Varmam maps, speech delay correction, neuromuscular disorders and therapeutic precision.

• **M10U2 ???? ???????????? ????????? ??????????? ??????? ??????????? - Varma Sikitchiyen Vazhikkattinerimuraigal amtrum Payanpadugal Ethical Guidelines and Therapeutic Applications of Varmam**

10.2.1 Ethical Guidelines – Informed consent, child safety, non-invasive practice, practitioner accountability, compassionate care, parental communication, ethical handling standards.

10.2.2 Clinical Protocols – Standardized pediatric assessment, point selection criteria, diagnosis workflow, treatment timing, contraindications, *Varmam* session structuring.

10.2.3 Therapeutic Methods – Pressure intensity calibration, session frequency, age-based modification, duration guidelines, condition-specific techniques,.

10.2.4 Integrated Models – Siddha-scientific medicine coordination, multidisciplinary collaboration, case documentation, outcome tracking and pediatric rehabilitation integration.

• **M10U3 ??????? ????????????????????? ???? ???????????? - Pothuvana**

	Noikurikunangalukku Varama Seyalmuraigal Practical Applications of Varmam for Common Pediatric Symptoms 10.3.1 Gastrointestinal Symptoms – Colic relief, constipation correction, indigestion management, appetite stimulation, abdominal *Varmam* points. 10.3.2 Respiratory Symptoms – Bronchitis alleviation, asthma control, wheezing reduction, nasal congestion relief, thoracic and facial *Varmam* stimulation. 10.3.3 Neurological Symptoms – Seizure management, headache relief, motor delay improvement, milestone enhancement, cranial and spinal *Varmam* activation. 10.3.4 Metabolic Disorders – Pediatric obesity, juvenile diabetes, hormonal imbalance regulation, glandular *Varmam* points. 10.3.5 Behavioral Disorders – ADHD focus enhancement, emotional regulation, learning disability support, calming points, cognitive stability, psycho-behavioral *Varmam* application. • **M10U4 ??????? ???????????????? ???? ???????????? - Pothuvana Noinilaikalukku Varmam Seyalmuraigal - Practical Applications of Varmam for Common Pediatric Disorders** 10.4.1 Neurological Disorders – Cerebral palsy, epilepsy, motor delays, neural circuit modulation, neurodevelopmental *Varmam* points, pediatric nervous system regulation. 10.4.2 Musculoskeletal Disorders – Scoliosis, clubfoot, kyphosis, muscular dystrophy, joint flexibility, postural correction, mobility restoration, skeletal-muscle point mapping. 10.4.3 Developmental Disorders – Autism spectrum disorder, intellectual disability, global delay, sensory regulation, calming techniques, behavior-modifying *Varmam* points. 10.4.4 Congenital Disorders – Congenital heart defects, spina bifida, craniofacial syndromes, functional stimulation, structural balance correction. 10.4.5 Multimodal Pediatric *Varmam* Practice – Rehabilitation co-therapy, yoga-based synergy, holistic outcome maximization, functional development tracking.					
		4	**20**	**40**	**60**	**120**

Semester No : 4

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
11	**M-11 ?????????????? ???????????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuvathin Adiappadaigal (Foundations and Comprehensive External Therapies for Pediatrics)** **This module covers external Siddha *therapies* in children, including *Thokkanam, Varmam, Ottradam, Kattu, Nasiyam, and Kalikkam.* It addresses musculoskeletal, neurological, dermatological, ENT, and gastrointestinal conditions. Emphasis is placed on age-specific techniques, safe therapeutic dosage, and integrative application for effective pediatric rehabilitation, wound healing, and developmental support.** • **M11U1 ?????????????? ??????????? – Kuzhanthaikalukkana Puramaruthuvam- Pediatric Pura Maruthuvam** 11.1.1 Introduction to Pediatric *Pura Maruthuvam – Siddha* external therapy foundations, non-invasive modalities, herbal applications, pediatric massage, heat therapy, skin and neuromuscular care. 11.1.2 Bone Development and Ossification in Children – Growth plate physiology, ossification stages, bone fragility, *Kattu, Thokkanam* adaptation, pediatric skeletal considerations. 11.1.3 Bio-Mechanics of Joints in Children – Pediatric joint mobility, structural	2	10	20	30	60

variability, massage therapy alignment, *Varmam* application, neuromuscular enhancement, functional restoration.
11.1.4 Temperature's Effect on Muscles and Nerves – Muscle relaxation, nerve inflammation control, *Ottradam, Vedhu,* thermoregulation, circulation enhancement, spasm and stiffness relief.
11.1.5 Therapeutic Dose and Duration in Pediatric Care – Age-based dosage, therapy duration limits, sensitivity modulation, protocol customization, safety guidelines, pediatric response monitoring.

• **M11U2 ?????????????? ?????????? ????????? ?????? – Kuzhanthaikalukkana Puramaruthuva Mauraigalin Vagaigal - Types of Siddha External Therapies for Children**

11.2.1 Heat Applications *(Ottradam, Vedhu, Suttigai)* – Hot compress, *steam therapy,* cauterization, muscle stiffness relief, circulation enhancement, pain control, pediatric respiratory and neuromuscular support.
11.2.2 Immobilization Techniques *(Kombu Kattal, Kattu, Patru)* – Splinting, bandaging, compress application, joint stabilization, fracture support, deformity correction, pediatric orthopedic care.
11.2.3 Local Manipulation Techniques *(Thokkanam, Podithimurthal)* – Pressure point stimulation, herbal massage, powder massage, pain reduction, joint mobility restoration, pediatric-safe application.
11.2.4 Drug Applications *(Nasiyam, Kalikkam, Pugai, Kattu, Thuvalai)* – Nasal drops, eye drops, fumigation, medicated pastes and bandages, respiratory relief, sinus treatment, skin disorder management.
11.2.5 Local Blood Letting *(Attai Vidal, Keeral) – Leech therapy,* needle-based drainage, inflammation reduction, circulatory improvement, skin infection treatment, pediatric safety protocols.

• **M11U3 ???????????? ?????? ??? ???????????? ?????????? ???????? ??????? – Kuzhanthaikalin Narambu Thasai Noigalukkana Puramaruthuva Sikitchai Muraigal - Siddha External Therapies for Neurological and Musculoskeletal Disorders**

11.3.1 *Sirasthambavatham* – Cerebral palsy, neurological dysfunction, *Thokkanam, Varmam* stimulation, motor coordination enhancement, physical rehabilitation.

	11.3.2 *Balavatham and Thasaivatham* – Infantile hemiplegia, Muscular dystrophy, massage therapy, muscle tone regulation, mobility improvement. 11.3.3 *Enbu Murivu and Mootu Nazhuval* – Bone fractures, herbal compresses, *Kattu* application, pain reduction, musculoskeletal healing, pediatric orthopedic support. 11.3.4 Deformities like Kyphosis and Scoliosis – Spinal curvature disorders, posture correction, skeletal alignment, pressure relief techniques. 11.3.5 *Valippu* (Seizures) – Pediatric epilepsy, seizure frequency control, *Varmam* activation, nervous system modulation, herbal external applications, neuroprotective therapy. • **M11U4 ???????? ????? ???????????? ??????????? ??????? - Udaliyakka Mandala Noinilaikallukana Pura maruthuva Muraigal - Applications of External Therapies for Systemic Diseases** 11.4.1 Colic and Abdominal Pain – Pediatric colic, abdominal discomfort, digestive disturbances, *Pugai therapy,Nasiyam* and non-invasive abdominal care. 11.4.2 Dermatological Conditions *(Karappan, Kuttam)* – Herbal pastes, *Poochu* application, oil massage, inflammation control, skin regeneration, pediatric dermal care. 11.4.3 ENT Conditions *(Nasiyam, Thuvalai, Poochu)* – Sinusitis, ear infections, nasal congestion, *Nasiyam, Thuvalai*, herbal rubs, ENT symptom relief, respiratory ease. 11.4.4 Eye Disorders *(Varmam, Kalikkam, Anjanam)* – Conjunctivitis, blurred vision, ocular clarity, eye irritation control. 11.4.5 Wound Healing and Abscesses *(Katti, Kazhalai, Pun)* – Skin wounds, abscess drainage, herbal bandages, *Kazhalai* cleansing, inflammation reduction, infection prevention, pediatric wound care.					
12	**M-12 ?????????????? ??????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuva Muraigal (Practical Applications and Integration of External Therapies Pediatrics)** **This module highlights Siddha *Pura Maruthuvam* applications for neurological,**	2	10	20	30	60

behavioral, ENT, respiratory, and pain disorders in children. It covers therapeutic tools like *Varmam, Thokkanam, Nasiyam, and Ottradam,* alongside immobilization techniques and pediatric case evidence. Focus is on clinical validation, safety, and integrative external therapy protocols.

• **M12U1 ????????? ???????????????? ??????????? ??????? - Arivusaar Kuraipadukalukkana Puramaruthuva Muraigal -Applications of External Therapies for Intellectual Disabilities**

12.1.1 Mental Retardation – Intellectual disability, cognitive delay, *Varmam* therapy, herbal applications, mental clarity enhancement, non-invasive brain function support.
12.1.2 Autism Spectrum Disorders (ASD) – Social behavior challenges, sensory processing issues, *Thappalam* massage, cognitive integration, emotional modulation, pediatric autism care.
12.1.3 Attention Deficit Hyperactivity Disorder (ADHD) – Hyperactivity, attention deficits, impulsivity control, *Varmam* stimulation, massage techniques, energy balance restoration.
12.1.4 Behavioral Disorders – Aggression, social anxiety, emotional dysregulation, herbal poultices, pressure point therapy, mental well-being promotion.
12.1.5 Developmental Delay – Milestone delays, motor dysfunction, *Thokkanam* massage, *Varmam* activation, skill acquisition improvement.

• **M12U2 ???????????? ????? ??????? ???? ??????????? ??????? - Orunginaintha Siddha matrum Naveena Puramaruthuva Mauraigal -Integrating Siddha Pura Maruthuvam with Modern Pediatrics**

12.2.1 Splinting and Immobilization *(Kattu, Kombu Kattal)* – Pediatric fractures, joint stabilization, musculoskeletal deformity correction, *Kattu* application, *Kombu Kattal* integration, orthopedic co-management.
12.2.2 *Pugai, Vedhu*, and Nebulization – Pediatric asthma, bronchitis, cough management, *Siddha* fumigation, steam therapy, nebulization synergy, respiratory function support.
12.2.3 *Nasiyam, Thuvalai, Kalikkam* in ENT Care – Nasal congestion, ear pain, eye irritation, *Siddha* nasal and ear drops, *Kalikkam* therapy, ENT symptom relief.
12.2.4 Wound Management *(Poochu, Kattu)* – Pediatric wound healing, abscess care,

herbal paste application, medicated bandages, infection control, integrative wound management.

12.2.5 Pain Management *(Ottradam, Thokkanam, Varmam)* – Heat therapy, massage techniques, pressure point activation, modern analgesics integration, pediatric pain relief, recovery enhancement.

• **M12U3 ?????????????? ?????????? ???????????? - Kuzhanthaikalukkana Puramaruthuva Seyalmuraigal -Practical Applications of Pediatric Pura Maruthuvam**

12.3.1 Heat Application *(Ottradam, Vedhu, Suttigai)* – Hot compress technique, steam application, cauterization methods, muscle relaxation, joint pain relief, pediatric thermal therapy.

12.3.2 Immobilization Techniques *(Kattu, Patru)* – Splinting procedures, medicated bandaging, pediatric fracture management, sprain stabilization, musculoskeletal support, healing facilitation.

12.3.3 Local Manipulation *(Varmam, Thokkanam)* – Pressure point stimulation, therapeutic massage, neurological improvement, musculoskeletal mobility, pediatric functional restoration.

12.3.4 Drug Applications *(Nasiyam, Kalikkam)* – External drug delivery, nasal drop instillation, herbal eye treatment, respiratory support, application protocols.

12.3.5 Blood Letting *(Attai Vidal, Keeral)* – Leech therapy, fine-needle drainage, inflammation control, infection reduction, pediatric bloodletting safety, procedural demonstration.

• **M12U4 ?????????????? ???????????????? ???????? ??????? ????????? ??????? ?????????? - Kuzhanthaikalukkana Puramaruthuvathil Aaivugal matrum Saandrugal Saarntha Nadaimuraigal -Case Studies and Evidence-Based Practices in Pura Maruthuvam**

12.4.1 Case Reports on *Siddha* External Therapies in Neurological Disorders – Cerebral palsy, seizures, *Varmam* application, *Thokkanam* outcomes, pediatric neurology management, therapeutic case analysis.

12.4.2 Case Series on Skin and Respiratory Conditions – Eczema, asthma, sinusitis, *Poochu* effectiveness, *Pugai* therapy, pediatric multi-case documentation.

12.4.3 Pilot Studies on Pediatric *Siddha* Therapies – Developmental delay, immune

	deficiency,Siddha external therapy validation, preliminary evidence generation. 12.4.4 Literature Review on *Siddha Pura Maruthuvam* – Classical references, modern publications, systemic and localized condition management, Siddha textual analysis. 12.4.5 Clinical Trials on *SiddhaExternal Therapies* in Pediatrics – Pediatric clinical endpoints, trial outcomes, evidence-based practice, large-scale therapeutic evaluation.					
		4	**20**	**40**	**60**	**120**

Semester No : 5

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
13	**M-13 ??????? ???? ?????????????? ??????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Virivana Maruthuva Muraigal (Comprehensive Management for Special Children)** **This module focuses on comprehensive pediatric rehabilitation, integrating behavioral therapy, special education, speech-language therapy, and Siddha support for neurodevelopmental and physical disabilities like cerebral palsy, epilepsy, and muscular dystrophy. It emphasizes multisystem collaboration, therapeutic innovations, caregiver training, and research-based interventions to ensure holistic functional recovery and child-centered care.**	2	10	20	30	60

• **M13U1 ??????? ??????????????? ????? ??????? ??????? ???? ????? ?????????? - Sirappu Kuzhanthaikalukkana Kalvi matrum Ulaviyal Samooga Amaippukal -Educational and Psychosocial Support Systems for Special Children**

13.1.1 Behavioral Therapy – Positive reinforcement, Applied Behavior Analysis (ABA), emotional regulation, coping strategies, parental participation, social stories, behavior modeling.

13.1.2 Special Education and Early Intervention – Individualized Education Plans (IEP), developmental delay intervention, adaptive learning, inclusive education, self-care training, independence promotion.

13.1.3 Psychotherapy and Counseling – Play therapy, art therapy, talk therapy, anxiety and depression support, trauma healing, Cognitive Behavioral Therapy (CBT), family counseling.

13.1.4 Social Skills Training – Peer interaction development, verbal and non-verbal cues, conflict resolution, role play, empathy building, trust enhancement, cooperation training.

13.1.5 Parental Education and Support – Caregiver training, stress reduction, crisis response, support networks, financial and legal guidance, emergency preparedness, family empowerment.

• **M13U2 ??????? ??????????????? ??????? ???????? ????????????- Sirappu Kuzhanthaikalukkana Palthurai Sikitchai Anugumuraigal Multidisciplinary Therapeutic Approaches for Special Children**

13.2.1 Medical Management – Antiepileptic therapy, muscle relaxants, behavioral medications, nutritional support, feeding strategies, growth monitoring, co-morbidity management.

13.2.2 Surgery and Orthopedic Interventions – Skeletal deformity correction, muscle release surgeries, scoliosis management, assistive device support, pre- and post-surgical care, rehabilitation coordination.

13.2.3 Physical Therapy (PT) – Gait training, balance control, coordination improvement, muscle strengthening, mobility aids, hydrotherapy, cerebral palsy rehabilitation.

13.2.4 Occupational Therapy (OT) – Dressing and grooming skills, sensory

integration, upper limb strength, motor coordination, assistive technologies, cognitive enhancement activities.

13.2.5 Speech and Language Therapy – Speech clarity, articulation support, apraxia and dysarthria therapy, language comprehension, non-verbal communication, stuttering control, social language development.

• **M13U3 ??????? ???????????? ????? ??????? ??????? ??????? ??????????? - Sirappu Kuzhanthaikalil Pulan Matrum Amaippu Saarntha Kuraipadugal - Sensory and Structural Impairments in Special Children**

13.3.1 Speech Disorders (Apraxia, Stuttering, Dysarthria) – Speech delay, articulation difficulty, neurological basis, conventional therapy, Siddha integration, rehabilitation research, communication enhancement.

13.3.2 Spina Bifida – Neural tube defect, lower limb weakness, bladder dysfunction, diagnostic imaging,Siddhacare, surgical management, mobility support, research innovations.

13.3.3 Orthopedic Impairments – Musculoskeletal disability, joint deformities, gait abnormalities, therapy modalities,Siddha techniques, integrative rehabilitation, functional restoration.

13.3.4 Hydrocephalus – Cerebrospinal fluid accumulation, head enlargement, developmental delays, neuroimaging diagnosis, shunt procedures, Siddha support, care integration.

13.3.5 Sensory Impairments (Hearing and Visual) – Auditory and visual deficits, sensory loss detection, assistive technologies,Siddha therapies, sensory rehabilitation, neuroplasticity research.

• **M13U4 ?????? ??????? ??? ???????????? ??????? ???????? ??????? – Narambu Matrum Thsai Noigalukkana Virivana Sikitchai Mauraigal - Comprehensive management of Neurological and Muscular Disorders**

13.4.1 Cerebral Palsy (CP) – Motor dysfunction, perinatal causes, spasticity patterns, functional limitations, Siddha and conventional rehabilitation, integrative care models, research and entrepreneurship.

13.4.2 Hemiparesis, Hemiplegia, and Quadriplegia – Partial and complete paralysis, motor weakness, diagnostic evaluation, therapy interventions, Siddhaintegration, neurological recovery enhancement.

	13.4.3 Muscular Dystrophy – Genetic muscle disorders, progressive weakness, functional decline, physiotherapy,Siddha *therapies*, quality of life improvement, translational research. 13.4.4 Epilepsy – Recurrent seizures, neurological dysfunction, EEG monitoring, anti-epileptic therapy, Siddha protocols, integrative neurological management, innovation in care. 13.4.5 Seizure Disorders – Convulsions, focal and generalized types, Siddha and allopathic synergy, comprehensive seizure control, rehabilitation strategies, modern treatment advances.					
14	**M-14 ??????? ???? ?????????????? ???????????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Orunginaintha Maruthuva Muraigal (Integrated Management for Special Children)** **This module explores neurodevelopmental and behavioral disorders including ASD, ADHD, intellectual disability, and learning difficulties, integrating Siddha and modern interventions. It emphasizes infrastructure planning, legal compliance, multidisciplinary therapy, and Siddha-specific rehabilitation protocols such as *Varmam, Thokkanam,* and internal remedies, promoting holistic pediatric care, institutional development, and clinical entrepreneurship.** • **M14U1 ??????????? ???????????? ????????? ???????? ??????? ?????? ????????? – Sirappunilai Kuzhanthaikalil Narambiyal Valarchi matrum Nadaththai Kolarugal - Neurodevelopmental and Behavioral Disorders in Special Children** 14.1.1 Sensory Processing and Feeding Impairments – Sensory modulation disorders, food aversion, dysphagia, oral-motor dysfunction, sensory integration therapy, specialized feeding interventions. 14.1.2 Autism Spectrum Disorder (ASD) – Social interaction deficits, repetitive behavior, sensory hypersensitivity, early diagnosis, behavioral therapy, parental support, intervention programs.	2	10	20	30	60

14.1.3 Global Developmental Delay – Delayed motor, language, and cognitive milestones, early screening, multidisciplinary assessment, rehabilitation planning, developmental support strategies.
14.1.4 Attention Deficit Hyperactivity Disorder (ADHD) – Inattention, hyperactivity, impulsivity, diagnostic criteria, behavioral modification, pharmacologic treatment, focus and self-regulation training.
14.1.5 Learning Disabilities – Dyslexia, dysgraphia, dyscalculia, academic difficulty, educational assessment, remedial instruction, adaptive teaching methods, coping skill development.

• **M14U2 ?????????? ???????????? ?????????? ??????? ?????? ???????? ???????????? - Sirappunilai Kuzhanthaikalil Arivaatral matrum Nadaththai Savalkalai Nirvagiththal -Management of Cognitive and Behavioral Challenges in Special Children**

14.2.1 Intellectual Disability – Cognitive impairment, delayed adaptive functioning, diagnostic evaluation, Siddhaand conventional therapies, integrative care, skills training, research potential.
14.2.2 Down Syndrome – Trisomy 21 etiology, dysmorphic features, developmental delays, Siddha internal and external management, rehabilitation integration, modern support systems.
14.2.3 Oppositional Defiant Disorder (ODD) and Conduct Disorder – Aggressive behavior, defiance patterns, psychological assessment, behavioral therapy, Siddha interventions, integrative behavior modification.
14.2.4 Nonverbal Learning Disorder and Specific Learning Disabilities – Spatial and motor dysfunction, reading and writing difficulty, Siddha-conventional synergy, academic support strategies, therapy models.
14.2.5 Anxiety Disorders and Depression – Emotional dysregulation, fear and withdrawal, psychosocial interventions, Siddha formulations, integrated mental health care, therapeutic skill development.

• **M14U3 ?????????? ????????????????? ??????? ????? ?? ??????? ????????? - Sirappunilai Kuzhanthaikalukkana Virivana Siddha Nala Maiyaththai Niruvuthal - Establishing a Comprehensive Siddha wellness center for Special Children**

14.3.1 Infrastructure and Facility Planning – Child-friendly design, therapy room setup, OT/PT spaces, speech therapy units, special education zones, accessibility standards.
14.3.2 Integrating Siddha Management (Internal and External) – Internal medicine protocols, external therapies, *Varmam,Thokkanam, Kizhi* etc., applications, holistic pediatricSiddha integration.
14.3.3 Staffing and Specialized Therapies – Multidisciplinary recruitment, *Siddha* physicians, speech therapists, occupational and physiotherapists, therapy coordination, integrative service planning.
14.3.4 Business Planning and Financial Management – Budget planning, operational funding, revenue models, financial sustainability, pediatric Siddha hospital entrepreneurship.
14.3.5 Legal Compliance and Accreditation – Healthcare licensing, Siddhahospital regulations, pediatric practice norms, NABH accreditation, statutory compliance, institutional governance.

• **M14U4 ?????????? ???????????????? ??????? ??????? ???? ??????? ?????????? - Sirappunilai Kuzhanthaikalin Ulaviyal matrum Marabu Noikalai Parikariththal Management of Complex Psychiatric and Genetic Disorders in Special Children**

14.4.1 Obsessive-Compulsive Disorder (OCD) – Repetitive behaviors, obsessive thoughts, behavioral therapy, Siddha internal and external treatments, integrated care, research and teaching skills.
14.4.2 Post-Traumatic Stress Disorder (PTSD) – Emotional trauma, hyperarousal, diagnostic criteria, psychotherapy,Siddha oil applications, soft skills, entrepreneurial insights.
14.4.3 Bipolar Disorder and Schizophrenia – Mood instability, psychotic symptoms, conventional medication, Siddha management, integrative neuropsychiatry, academic and research training.
14.4.4 Fragile X Syndrome and Rett Syndrome – Genetic abnormalities, developmental regression, supportive interventions, diet and *Varmam*, Siddha protocols, skill-building in genetic care.
14.4.5 Tourette Syndrome and Developmental Coordination Disorder (DCD) –

	Motor tics, coordination impairment, behavioral therapy, Siddha *Varmam* application, therapeutic innovation, student research development.					
		4	**20**	**40**	**60**	**120**
Semester No : 6						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
15	**M-15 ???????????? ???? ??????? ???? ?????????????? ??????? ????? ??????? Kuzhanthaigalin Udal Matrum Manam Arogiyathirkana Siddhar Yoga Muraigal (Pediatric Yoga for Physical and Mental Development)** **This module presents Siddhar Yogam principles and practices tailored for children, focusing on physical growth, emotional regulation, immunity, digestion, and behavioral balance. It integrates yogic postures, breathing techniques, and mindfulness with Siddha dietary and therapeutic principles, promoting preventive health, cognitive development, and holistic healing in pediatric care through structured age-appropriate protocols.** • **M15U1 ?????????????? ??????? ??? ????????? ??????????? - Kuzhanthaigalukkana Siddhar Yogam Muraikalin Adippadaigal Foundations of Siddha Pediatric Yoga** 15.1.1 Introduction to Siddhar Yogam for Children – Yoga philosophy, physical postures, breath regulation, mindfulness, pediatric well-being, mind-body-spirit	2	10	20	30	60

alignment, holistic framework.
15.1.2 Philosophy of Yogam in Pediatric Siddha Medicine – Siddhar-Yogam integration, muktram balance, spiritual development, constitutional harmony, traditional pediatric wellness concepts.
15.1.3 Yogam for Physical Growth and Development – Posture-based muscle strength, bone development, flexibility improvement,Siddha-aligned exercises, child-specific growth enhancement.
15.1.4 Yogam for Mental Health and Cognitive Development – Concentration improvement, memory sharpening, emotional regulation, stress reduction, mind-focused practices, cognitive advancement.
15.1.5 Preventive Health Through SiddharYogam – Immunity strengthening, digestion support, respiratory health, daily routine regulation, humor balance, lifestyle-based disease prevention.

• **M15U2 ???????????? ???? ???????????????? ??????? ??? ?????????? – Kuzhanthaigalin Udal Arokiyathirkana Yogam Paiyrchigal - Siddha Yoga Practices for Physical Health**

15.2.1 Postures for Musculoskeletal Health in Children – Bone strength development, muscular support, spinal alignment, posture correction, growth stimulation, Siddha-guided physical enhancement.
15.2.2 Breathing Techniques for Respiratory Health – Lung capacity expansion, breath regulation, pranayama practice, cold and asthma control, Siddha-aligned respiratory maintenance.
15.2.3 Yogam for Digestive Health – Gastrointestinal stimulation, constipation prevention, indigestion relief, abdominal movements,Siddha dietary harmony, gut wellness.
15.2.4 Yogam for Enhancing Flexibility and Balance – Stretch-based coordination, balance training, motor skill improvement, joint mobility, physical resilience, postural symmetry.
15.2.5 Yogam for Immunity Boosting – Immune system stimulation, infection resistance, integrated postures and breathwork, Siddha preventive care, holistic pediatric defense.

• **M15U3 ???? ??????? ?????? ??????????? ??????? ??? ??????? - Unar**

matrum Nadaththai Samanilaikkana Siddhar Yogam Muraigal - Siddha Yoga for Emotional and Behavioral Balance

15.3.1 Yogam for Emotional Regulation – Stress reduction, anxiety control, emotional stability, breathing practices, relaxation techniques, pediatric resilience enhancement.

15.3.2 Mindfulness and Breathing for Calmness – *(Mootchu pairchi) Pranayamam* practice, hyperactivity control, inner peace cultivation, anxiety reduction, focus stabilization, calmness training.

15.3.3 Yogam for Positive Behavioral Development – Discipline improvement, emotional control, patience building, social adjustment, behavioral harmony, Siddhar Yogam routines.

15.3.4 Yogam for Social and Emotional Learning – Empathy building, teamwork development, cooperation exercises, group interaction, Siddha holistic engagement, social growth.

15.3.5 Therapeutic Yogam for Behavioral Disorders – ADHD symptom control, anxiety management, concentration enhancement, Siddha-based Yogam protocols, behavioral therapy integration.

• **M15U4 ?????????????? ???????????? ??????? ??? ??????? – Kuzhanthaigalukkaana Orunginaintha Yogam Muraigal - Integrating Yoga with Pediatric Care**

15.4.1 Combining Siddhar Yogam with Conventional Treatments – Integrative healing support, treatment efficacy enhancement, mind-body balance, pediatric recovery aid, Siddha-modern synergy.

15.4.2 Yogam as a Preventive Tool in Pediatric Health – Respiratory infection prevention, digestive wellness, mental health resilience, lifestyle discipline, pediatric immunity maintenance.

15.4.3 Age-Appropriate Yogam Practices for Children – Infant routines, toddler flexibility, school-age strength building, developmental safety, age-tailored posture selection.

15.4.4 Yogam for School-Age Children – Focus and concentration training, cognitive function improvement, academic performance support, memory stimulation, breathing and posture alignment.

	15.4.5 Dietary Guidelines in Combination with Yogam for Pediatric Health – Siddhadietary principles, nutrient balance, digestion and immunity support, Yoga-diet integration, holistic child nourishment.					
16	**M-16 ???????????? ???? ???????????? ??????? ????? ??????? Kuzhanthaigalin Noi Nilaigalukkana Siddhar Yogam Muraigal (Therapeutic Siddhar Yogam for Pediatric Disorders)** **This module explores Siddhar Yogam therapies for managing pediatric neurological, respiratory, gastrointestinal, immune, and behavioral disorders. It emphasizes condition-specific routines, breathing practices, and postural modifications for children with special needs. Integrating Siddha and evidence-based Yoga, it enhances healing, emotional resilience, and holistic health through therapeutic and preventive pediatric applications.** • **M16U1 ?????? ??????? ???? ???????????? ???????????? ??????? ??? ??????? – Narambu matrum Valarchi Kuraipaattu Noikalukkana Siddhar Yoga Muraigal -Siddha Yoga for Neurological and Developmental Disorders** 16.1.1 Yogam for Neurological Health in Children – Nervous system strengthening, epilepsy support, developmental delay management, brain function stimulation, neurotherapeutic breathing and postures. 16.1.2 Therapeutic Yogam for Autism Spectrum Disorder (ASD) – Social interaction enhancement, communication support, emotional stability, attention span improvement, ASD-specific Siddha Yoga routines. 16.1.3 Yogam for Managing ADHD in Children – Hyperactivity reduction, attention control, impulsivity management, focus enhancement, mindfulness-basedSiddha Yoga techniques. 16.1.4 Yogam for Speech and Cognitive Delays – Oxygenation improvement, brain function enhancement, speech development support, memory boosting, concentration-focused practices. 16.1.5 Therapeutic Use of Yogam in Behavioral and Emotional Disorders – Mood	2	10	20	30	60

regulation, anxiety relief, depression management, calming posture routines, emotional well-being enhancement.

• **M16U2 ????? ??????? ????? ???????? ????? ??????????? ??????? ??? ??????? – Suvasa matrum Iruthaya Irathaasaya Nalathirkana Siddhar Yoga Muraigal -Siddha Yoga for Respiratory and Cardiovascular Health**

16.2.1 Yogam for Asthma and Breathing Difficulties – Controlled breathing exercises, lung function improvement, asthma prevention, airway strengthening, Siddha respiratory regulation.

16.2.2 Therapeutic Yogam for Pediatric Bronchitis – Airway clearance, inflammation reduction, posture-based respiratory support, gentle movement therapy, Siddha bronchial relief practices.

16.2.3 Breathing Exercises for Strengthening Respiratory Health – Lung capacity enhancement, oxygenation improvement, infection prevention, breath-based immunity support, long-term respiratory wellness.

16.2.4 Yogam for Cardiovascular Health in Children – Circulatory stimulation, heart function regulation, blood pressure balance, gentle cardiac postures, Siddha cardiovascular alignment.

16.2.5 Therapeutic Yogam for Pediatric Respiratory Disorders – Integrative asthma and bronchitis care, Yoga-medical synergy, clinical outcome enhancement, recovery acceleration, Siddha breathing support.

• **M16U3 ???? ????? ??????? ??????? ????????????? ?????????????? ??????? ??? ??????? – Seerna Mandala noigal matrum Noiethirppu Arokkiyathirkana Siddhar Yoga Muraigal -Siddha Yoga for Digestive and Immunological Health**

16.3.1 Yogam for Digestive Disorders in Pediatrics – Indigestion, bloating reduction, abdominal discomfort control, digestive flow enhancement,Siddha postural and breathing support.

16.3.2 Therapeutic Yogam for Gastrointestinal Conditions – Constipation management, colic relief, bowel regulation, gastrointestinal balance, pediatric abdominal Yoga techniques.

16.3.3 Yogam for Enhancing Pediatric Immunity – Circulatory improvement, breath capacity expansion, energy flow activation, immune defense strengthening, infection

	resistance support. 16.3.4 Yogam for Autoimmune Disorders in Pediatric Care – Juvenile arthritis management, pediatric lupus support, inflammation reduction, immune modulation, calming therapeutic routines. 16.3.5 Yogam for Allergies and Immune Regulation – Allergy symptom relief, detoxification practices, respiratory improvement, immune response balance, Siddha-based allergy management. • **M16U4 ??????? ?????????????? ??????? ??? ???????? ???????????? – Kuzhanthai Maruthuvathil Siddhar yogam maruththuva Seyalmuraigal -Practical Application of Siddha Yoga in Pediatric Care** 16.4.1 Designing Yogam Routines for Children with Special Needs – Posture modification, breathing adaptation, developmental disability support, motor skill enhancement, safe pediatric Yoga planning. 16.4.2 Yogam for Pain Management in Pediatric Care – Non-invasive pain relief, musculoskeletal support, chronic condition management, mobility improvement, relaxation techniques. 16.4.3 Therapeutic Yoga for Stress and Anxiety in Children – Emotional resilience building, anxiety control, calming breathwork, mindfulness application, pediatric psychological support. 16.4.4 Yogam and Mind-Body Integration for Pediatric Health – Physical-mental coordination, breathing-movement synchronization, emotional regulation, vitality improvement, holistic child development. 16.4.5 Case Studies and Evidence-Based Practices inSiddha Yoga for Pediatrics – Clinical outcomes, condition-specific applications, asthma and anxiety case reports, research validation, therapeutic success examples.					
		4	**20**	**40**	**60**	**120**
		16	**80**	**160**	**240**	**480**
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)						
Semester No : 3						

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
17	**M-17 ?????????????? ????? ???????? ???? ??????? - Kuzhanthaigalukkaana Siddha Maruthuva Unavu Muraigal (Siddha Based Pediatric Nutrition)** **This module highlights Siddha dietary principles for pediatric growth, development, and disease management, focusing on nutrition across life stages, including infancy, pregnancy, and adolescence. It integrates herbal, functional, and traditional foods, offers condition-specific diet planning, and promotes gut health, immunity, and cognitive well-being for holistic pediatric nourishment and therapeutic care.** • **M17U1 ??????? ?????????????? ????????????? ??????????? - Kuzhanthai Arokiyaththil Ootasathin Adippadaigal - Fundamentals of Nutrition in Pediatric Health** 17.1.1 Child Growth, Development, and Gastrointestinal Health – Infant GI maturation, developmental stages, Siddha dietary support, natural digestive enhancers, pediatric growth facilitation. 17.1.2 Nutrition, Digestion, and Absorption inSiddha – Nutrient assimilation, digestive efficiency, pediatric nourishment, Siddha food principles, absorption optimization. 17.1.3 Gut Microbiota and Immune Health in Infants – Microbial diversity, infant gut ecology, Siddha dietary modulation, immunity enhancement, digestive flora balance.	2	10	20	30	60

17.1.4 Nutritional Needs for Pediatric Health (Energy, Protein, Fat, Vitamins, and Minerals) – Macronutrient and micronutrient essentials, Siddha nutritional equivalents, growth-based dietary planning, traditional nourishment methods.
17.1.5 Early Nutrition and Long-Term Health – Preventive health outcomes, early-life nutrition planning, Siddha food strategies, long-term pediatric wellness promotion.

• **M17U2 ??????? ????????????? ????????????? ??????????? - Kuzhanthai Arokiyaththil Ootasathin Adippadaigal -Dietary Guidelines for Children of Different Ages**

17.2.1 Nutrition in Pregnancy and Lactation – Maternal health support, lactation enhancement, prenatal nourishment, Siddha herbal formulations, newborn well-being promotion.
17.2.2 Energy and Nutritional Requirements for Infants, Children, and Adolescents – Growth-stage dietary planning, Siddha nutrition adaptation, traditional food use, energy balance strategies.
17.2.3 Nutritional Needs of Preterm Infants – Weight gain support, developmental progression,Siddha feeding protocols, herbal strengthening remedies, neonatal care focus.
17.2.4 Breastfeeding and Complementary Feeding inSiddha – Breast milk benefits, allergy prevention, complementary feeding timing, *Thaipalinperumai* practices, traditional infant nutrition.
17.2.5 Siddha-Based Dietary Guidelines for School-Age Children and Adolescents – Balanced diet planning, traditional meal structuring, mental and physical growth, snack selection, human milk banking awareness.

• **M17U3 ???????????? ????????????? ?????????, ????????? ??????? ????? ??????????? ????? – Kuzhanthaikalin Oottasathil Mooligaigal, Thathukkal matrum Jeeva Porutkalin Pangu -Role of Herbs, Minerals, and Animal Products in Pediatric Nutrition**

17.3.1 Herbs for Pediatric Nutrition – *Athi, Arugan, Karisalai, Manathakali, Keezhkainelli* benefits, immune support, growth enhancement, Siddha herbal applications.
17.3.2 Minerals and Animal Products in Pediatric Nutrition – Milk, honey, fish, meat

	preparations, mineral supplementation, deficiency correction, Siddha-based growth promotion. 17.3.3 Therapeutic Use of Traditional Rice, Pulses, and Vegetables – Indigenous rice varieties, legume benefits, vegetable-based therapy, Siddhadietary balancing, nutritional restoration. 17.3.4 Functional Foods in Pediatric Care – Honey, greens, dairy derivatives, immunity boosting, holistic nourishment, Siddha-recommended functional food usage. 17.3.5 *Siddha* Classification of Foods and Gunaporulgal – *Vali-Azhal-Iyyam* dietary effects, *Sattva-Raso-Tamo* influence, emotional balance, energy modulation, pediatric well-being optimization. • **M17U4 ???????????? ???????????? ????? ???????? ??????? – Kuzhanthaikalin Noikalukkana Siddha Maruthuva Unavugal Siddha Dietary Management for Pediatric Diseases** 17.4.1 Siddha Dietary Management for Respiratory and Digestive Disorders – *Suram and Kazhichal* care, *AgumAagapatharthangal* application, *thodam* balance, pediatric diet therapy, digestive-respiratory healing. 17.4.2 Dietary Management for Skin Conditions and Neurological Disorders – *Karappan* and *Valippunoi* support, food-based interventions, symptom mitigation, dietary triggers,Siddha neurodermatological care. 17.4.3 Siddha Dietary Management for Childhood Fever and Infectious Diseases – *Veluppunoi, Kanam, Suzhi Kanam* support, immune strengthening, infection resistance, fever-specific dietary regulation. 17.4.4 Antiepileptic Drug-Nutrient Interactions – Nutrient absorption challenges, antiepileptic impact, Siddha nutritional correction, medication synergy, dietary side effect reduction. 17.4.5 Siddha Nutrition for Special Children – *Ammainoi, Gunmam, Athithoolam* dietary support, special needs adaptation, herbal supplementation, cognitive-physical development nourishment.					
18	**M-18 ???????????? ?????????? ??????? ???? ????????? ????? ???????? ???? ??????? - Kuzhanthaigalin Arogyam Matrum Noi**	2	10	20	30	60

Nilaigalil Siddha Maruthuva Unavu Muraigal (Siddha Based Dietary Practices in Pediatric Health and Diseases)

This module addresses Siddha strategies for preventing and managing pediatric malnutrition, including nutritional deficiencies, lactation support, and failure to thrive. Emphasis is placed on dietary evaluation, anthropometry, traditional formulations, *pathiyam,* and *Thegi*-based customization. It includes case-based applications to promote immunity, digestion, growth, and resilience in children using Siddha nutrition.

• **M18U1 ?????????? ???????????? ???????????? ????? ???????? ???? ??????? – Oottasaththu Kuraipattai Thaduppatharkana Siddha Maruththuva Unavu Muraigal - Siddha Approach to Preventing Malnutrition**

18.1.1 Preventing Primary and Secondary Malnutrition – Etiology differentiation,Siddha dietary protocols, traditional food usage, holistic nourishment, pediatric nutritional safeguarding.

18.1.2 Nutrition and Immunity in Siddha – Immune enhancement, *Kayakarpam* application, herbal boosters, infection resistance, long-term pediatric health promotion.

18.1.3 Siddha Management of Nutritional Deficiencies – Anemia correction, vitamin restoration, *Pothu Karpam,Sirappu Karpam*, nutrient-rich herbal intervention, developmental support.

18.1.4 Support for Children Not Receiving Enough Breast Milk – *Panchamutti Kanji, Aarootma Kanji, Barli Kanji* application, lactation enhancement, infant nourishment, breastfeeding assistance.

18.1.5 Failure to Thrive and Malnutrition Prevention in Siddha – Growth support, failure-to-thrive reversal, balanced *Siddha* food combinations, herbal supplementation, developmental nutrition.

• **M18U2 ???????? ???? ?????????? ????? ???????? ???? ???????????? ????????????? – Vazhakkamana Unavu Muraikaludan Siddha Maruthuva Unavu Muraikalain Orunginaippu - Integration of Siddha and Conventional**

Dietary Practices

18.2.1 Clinical Evaluation and Anthropometry – Nutritional status assessment,Siddha diagnostic integration, growth monitoring, anthropometric measurement, pediatric health evaluation.

18.2.2 Nutrient Intake and Traditional Siddha Beverages – Traditional beverages usage, digestion support, immunity boosting, beverage-based nourishment, pediatric dietary inclusion.

18.2.3 Amylase-Rich and Traditional Malt Foods inSiddha – Digestive enzyme enhancement, malt-based nutrition, absorption improvement, gastrointestinal health promotion, pediatric diet fortification.

18.2.4 BalancingSiddha and Modern Nutritional Guidelines – Holistic dietary alignment, nutrition guideline synthesis, Siddha-modern integration, child health harmonization.

18.2.5 Siddha-Based Nutritional Concepts in Classical Texts – *Padhartha Guna Chinthamani* principles, *Thirukkural* references, classical dietary wisdom, Siddhanutrition relevance.

• **M18U3 ????? ???????? ???? ??????? ????????????? – Siddha Maruthuva Unavu Muraikalai Seiyalpaduthuthal - Practical Implementation of Siddha Dietary Practices**

18.3.1 Diet History and Dietary Intake Assessment – Siddha-based diet evaluation, intake analysis, individualized nutrition planning, pediatric growth monitoring, dietary pattern identification.

18.3.2 *Pathiyam* and Dietary Restrictions in Pediatrics – Therapeutic food restrictions, illness-specific diets, energy balance restoration, recovery enhancement, Siddha dietary discipline.

18.3.3 Customizing Diets Based on *Thegigal – Udal vanmai*-based diet planning, *mukkutra* alignment, immune function support, growth-focused dietary personalization.

18.3.4 Hydration and Water Quality in Pediatric Health – *Neeragarathin Kunam* principles, hydration practices, digestive health influence, metabolic regulation, pediatric fluid intake.

18.3.5 Dietary Adjuncts in Pediatric Siddha Medicine – *Marunthirku Aga*

	Patharthangal role, herbal-food synergy, recovery support, therapeutic food pairing, clinical nourishment enhancement. • **M18U4 ??????? ????????????? ????? ???????? ?????????? ???? ??????? ???????? – Kuzhanthai Maruthuathil Siddha Maruthuva Oottasaththu Unavu Kuriththa Aaivugal Case Studies on Siddha Nutrition in Pediatrics** 18.4.1 Case Studies on Managing Pediatric Malnutrition – Nutritional restoration, traditional food application, herbal supplementation, growth promotion, malnutrition reversal documentation. 18.4.2 Case Studies on Pediatric Digestive Disorders – Indigestion resolution, gastrointestinal balance, Siddha intervention outcomes, diet-based recovery success, clinical digestive care. 18.4.3 Case Studies on Respiratory Conditions in Children – Asthma, respiratory symptom control, dietary support effectiveness, breath health enhancement, Siddha nutrition role. 18.4.4 Case Studies on Boosting Immunity in Pediatric Health – Infection reduction, immune strength improvement, dietary immunity boosters, herbal functional food use, resilience building. 18.4.5 Case Studies on Siddha Nutrition for Children with Special Needs – Cognitive growth support, physical development tracking, customized diet outcomes, functional enhancement, pediatric rehabilitation through nutrition.					
		4	**20**	**40**	**60**	**120**
Semester No : 4						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular**	**2G Total**

					Assessment	
19	**M-19 ???????????? ???? ??????? ???? ????????? ????? ????????????? ?????????? - Kuzhanthaigalin Samooga Matrum Noi Thaduppil Siddha Maruthuvathin Adippadaigal (Foundations Community and Preventive Pediatrics in Siddha)** **This module explores Siddha preventive care practices for pediatric health, emphasizing immunity enhancement, disease prevention, nutritional support, and community health strategies. It integrates traditional therapies, vaccination synergy, and seasonal regimens with public health frameworks. Practical tools for growth monitoring, herbal formulations, and outreach programs highlight Siddha's role in holistic pediatric wellness.** • **M19U1 ???????????? ???? ??????? ???????????? ????? ?????????? - Kuzhanthaikalin Noi Thaduppu Kotpaattil Siddha Maruthuvam - Principles of Preventive Pediatrics in Siddha** 19.1.1 Basics of Preventive Care in Siddha – Holistic wellness foundation, *mukkutram* balance, early-life disease prevention, traditional health maintenance, pediatric preventive strategies. 19.1.2 Siddha Concepts of Immunity and Well-being – *Mukkutram* regulation, immune system vitality, health preservation, disease resistance principles, Siddha immune philosophy. 19.1.3 Preventive Care for Newborns and Children – Newborn regimen, *Vasambu and Uraimathirai* usage, hygiene practices, seasonal adaptation, early immune fortification. 19.1.4 Siddha Therapies for Pediatric Care – External preventive applications, internal herbal formulations, common disease prophylaxis, traditional therapy integration. 19.1.5 Role of Vaccination and Siddha's Immunity Approaches – Vaccination support, immune-enhancing herbs, integrative immunity strengthening, Siddha-	2	10	20	30	60

scientific mediicne synergy.

• **M19U2 ???? ?????????????? ????? ???????? ???????????? – Samooga Arokkiyathil Siddha Maruthuva Karuthurukkal - Siddha Concepts of Community Health**

19.2.1 Siddha and Public Health Concepts – Environmental influence, dietary regulation, lifestyle practices, community disease prevention,Siddha public health integration.

19.2.2 Role of Siddha in Preventing Childhood Diseases – Respiratory infection control, digestive disorder prevention, skin care strategies, community-levelSiddha interventions.

19.2.3 Siddha Health Camps for Communities – Rural outreach services, pediatric screening, preventive herb-based care, *Siddha* diagnostic and treatment exposure.

19.2.4 Lifestyle and Community Health in Siddha – Daily regimen promotion, community dietary planning, behavioral practices, traditional health sustainability approaches.

19.2.5 Siddha and Seasonal Disease Prevention – Fever and cold management, seasonal food adaptation, herbal prophylaxis, *Kayakarpam*-based seasonal immunity support.

• **M19U3 ???????????? ?????????? ??????? ???????? ????????????? ????? ?????????? - Kuzhanthaikalin Oottasaththtu matrum Valarchi Kankaanippil Siddha Maruthuvam - Pediatric Nutrition and Growth Monitoring in Siddha**

19.3.1 Siddha Guidelines for Pediatric Nutrition – Child-specific dietary planning, functional food integration, herbal supplementation, growth-promoting nutrition,Siddha dietary foundations.

19.3.2 Growth Monitoring Tools and Techniques – Pulse examination, tongue and eye diagnosis, developmental delay detection, traditional Siddha assessment tools.

19.3.3 Nutritional Assessments for Pediatrics – Digestion analysis, nutrient assimilation review, elimination pattern observation,Siddha growth assessment framework.

19.3.4 Dietary Guidelines for Different Pediatric Age Groups – Infant to school-age planning, age-appropriate food selection, mukutram balance, developmental nutrition

	customization. 19.3.5 Preventive Nutrition Strategies – Deficiency prevention, herbal dietary correction, Siddha health maintenance, specialized nutritional planning, disease aversion. • **M19U4 ???? ????????? ??????? ???? ???????????? ????? ???????? ???????????? – Noi Ethirpaatral matrum Noi Thaduppukkanana Siddha Maruthuva Anugumuraigal - Siddha Approaches to Immunization and Disease Prevention** 19.4.1 Siddha Integration in National Immunization Programs – Siddha vaccine support strategies, Siddha- modern medicine synergy, immunity-enhancing interventions, national program alignment. 19.4.2 Siddha Medicines and Immunity Enhancement – *Kayakarpam* application, special herbal formulations, immune response stimulation, post-vaccination side effect prevention, complementary therapies. 19.4.3 Preparation of Immunity-Boosting SiddhaMedicines – *Sei Ennai, Sei Neer variants, Urai Mathirai, Yetthankai Podi* preparation, traditional pediatric immunity support. 19.4.4 Prevention and Management of Communicable Diseases – Hygiene maintenance, dietary protection, herbal internal medicines,external therapies, infectious disease control. 19.4.5 Medicinal Plants for Pediatric Immunization – *Vasambu, Sukku, Thippli, Milagu, Poondu* etc., Siddha pediatric immune modulation.					
20	**M-20 ????????????? ???????? ??????? ???? ????????????? ????? ?????????? Kuzhanthaigalukkaana Maruthuva mattrum Pothu Sugatharathil Siddha Maruthuvam (Clinical Applications and Public Health in Siddha Pediatrics)** **This module highlights siddha approaches for managing common pediatric illnesses, boosting immunity with *Kayakarpam and Kaappu,* and legal-public health frameworks supporting child welfare. It emphasizes community**	2	10	20	30	60

awareness, school engagement, national and global health programs, and the integration of Siddha in public health policies, pediatric rights, and preventive strategies.

• **M20U1 ??????? ???? ??????????? ????? ???????? ??????? ??????? – Kuzhanthai Paruva Noigalukku Siddha Maruthuva Thaduppu Muraigal - Siddha-based Preventive Therapies for Childhood Diseases**

20.1.1 Prevention and clinical nutrition for Common Cold, Fever, and Cough – Clinical nutrition usage, herbal decongestion, respiratory relief, febrile condition management, child-friendly Siddha interventions.

20.1.2 Prevention and clinical nutrition to Diarrhea and Digestive Disorders – Food and siddha formulations, indigestion control, bowel regulation, herbal dietary integration, digestive system stabilization.

20.1.3 Dietary advices for Skin and Respiratory Conditions – Food and prevention stratagies for Eczema, pediatric asthma management, external herbal applications, skin-respiratory wellness maintenance.

20.1.4 Prevention and dietetics for Allergies and Immune Boosting with *Kayakarpam* – Allergy control, immune resilience enhancement, herbal immune modulators, long-term disease prevention.

• **M20U2 ??????? ???????????? ???? ??????????? ????? – Kuzhanthai Paramarippil Pothu Sugatharathin Pangu - Public Health Interventions in Pediatric Care**

20.2.1 Public Health Laws for Pediatric Care – Siddha integration in public health, child health regulations, legislative frameworks, community wellness mandates.

20.2.2 Role of Public Health Legislations for Children – Pediatric Siddha access, child-centered policy development, government health initiatives, care equity promotion.

20.2.3 Health Rights for Children and Legal Protection – Legal entitlements, Siddha healthcare accessibility, child protection statutes, rights-based clinical practices.

20.2.4 Juvenile Judiciary and Healthcare – Child welfare advocacy, legal-therapeutic coordination, Siddha'srole in justice-linked pediatric health programs.

20.2.5 Framework of Public Health Interventions – Holistic child health models, Siddha preventive outreach, community intervention strategies, population-level wellness planning.

• **M20U3 ??????? ????????????? ????? ???????? ???? ????? ??????? ????????????? – Kuzhanthai Maruthuvathil Siddha Maruthuva Samooga Kalvi matrum Vizhippunarvu - Community Education and Awareness in Siddha Pediatrics**

20.3.1 Importance of Community Education – Siddha health dissemination, childhood disease prevention awareness, public engagement strategies, community wellness education.

20.3.2 Pediatric Health Scenario in India – National child health challenges,Siddha healthcare role, integrative pediatric intervention potential, system-based gaps.

20.3.3 Health Policies and their Role in Siddha – Policy framework alignment,Siddha pediatric inclusion, government health planning, traditional-modern system integration.

20.3.4 Legal Rights for Children in Health and Nutrition – Pediatric nutrition entitlements, health justice, Siddha-based child rights advocacy, statutory protections.

20.3.5 Awareness Programs for Parents and Schools – Preventive care promotion, Siddha health literacy, school-parent education models, pediatric community engagement.

• **M20U4 ????? ??????? ??????? ??????? ???????? ??????? ?????????? – Thesiaya matrum Sarvadesa Kuzhanthai Maruthuva Sugathara Thittangal - National and Global Pediatric Health Programs**

20.4.1 Overview of National Pediatric Health Programs – Government pediatric schemes, Siddha incorporation strategies, child health promotion, national healthcare alignment.

20.4.2 International Pediatric Health Initiatives – WHO and UNICEF collaborations, global child wellness goals, Siddha relevance in international frameworks.

20.4.3 Role of WHO and UNICEF in Pediatric Care – Global pediatric advocacy, immunization and nutrition support, Siddha system contribution pathways.

20.4.4 Maternal and Child Health Programs – Integrated maternal-child care, Siddha preventive applications, institutional health support programs, outcome enhancement.

	20.4.5 Global Health Screenings and Siddha Integration – Pediatric screening models, *Siddha* diagnostic roles, international health monitoring, holistic care opportunities.					
		4	**20**	**40**	**60**	**120**
Semester No : 5						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
21	**M-21 ?????????????? ????? ?????????? - Kuzhanthaigalukkaana Siddha Marunthiyal (Siddha Pharmacology for Pediatrics)** **This module explores the principles of pharmacology with pediatric relevance, covering modern and Siddha drug actions, age-specific pharmacokinetics, and formulation safety. It emphasizes Siddha pharmaceutics for common and developmental disorders, emergency management, and herbomineral preparations, with practical insight through case-based pediatric applications and dosage standardization.** • **M21U1 ???? ?????????? – Pothu Marunthiyal -General Pharmacology** 21.1.1 Define Pharmacology and Its Scope – Drug origin, composition, pharmacokinetics, pharmacodynamics, modern pharmacology fundamentals, therapeutic science foundation. 21.1.2 Explain the Importance of Pharmacology in Pediatric Healthcare – Pediatric	2	10	20	30	60

dosage safety, pharmacodynamic relevance, age-specific therapy, drug efficacy optimization.
21.1.3 Identify the Branches of Pharmacology – Neuropharmacology, cardiovascular, respiratory, gastrointestinal applications, pediatric pharmacological specializations.
21.1.4 Describe the Pharmacological Process – Drug absorption, distribution, metabolism, excretion in children, pharmacokinetic variation across age groups.
21.1.5 Factors Influencing Drug Response – Genetic variability, age and weight dependence, disease interactions, drug-drug interaction concerns, pediatric therapeutic customization.

• **M21U2 ???????????? ???????? ????? ???????????? ?????????? - Kuzhanthaigalin udaleyakka Mandala Noigalukkana Marunthiyal Pediatric Systemic Pharmacology**

21.2.1 Neonatal Pharmacology – Liver and renal immaturity, neonatal drug metabolism, toxicity risks, safety protocols, age-specific dosage adaptation.
21.2.2 Pediatric Neuropharmacology – Antiepileptics, stimulants, muscle relaxants, neurological condition management, pediatric neuropharmacokinetics.
21.2.3 Pediatric Cardiovascular Pharmacology – Congenital heart disease therapy, beta-blockers, ACE inhibitors, pediatric diuretic use, cardiovascular dosing concerns.
21.2.4 Pediatric Respiratory Pharmacology – Asthma and bronchitis treatment, bronchodilator and corticosteroid use, mucolytics, inhalation therapy dosing in children.
21.2.5 Pediatric Gastrointestinal Pharmacology – GERD and constipation management, antacids, antiemetics, laxatives, gastrointestinal drug pharmacodynamics in pediatrics.

• **M21U3 ?????????????? ????? ???????? ?????????? – Kuzhanthaikalukkana Siddha Maruthuva Marunthiyal - Siddha Pediatric Pharmacology**

21.3.1 Siddha Pediatric Medicines for Common Ailments – Fever, cough, cold, digestive issue remedies, classical formulations, symptom-targeted pediatric *Siddha* treatments.
21.3.2 Siddha Medicines for Pediatric Developmental Disorders – Autism and ADHD support, cognitive enhancement, neurodevelopmental regulation, specialized

	Siddha preparations. 21.3.3 SiddhaPharmacological Management of Pediatric Emergencies – Seizure control, high fever reduction, respiratory distress relief, emergency *Siddha* interventions. 21.3.4Siddha Pediatric Pharmaceutics – Powders, oils, syrups formulation, pediatric dosage tailoring, child-friendly Siddha pharmaceutics. 21.3.5 Siddha Safety and Efficacy in Pediatrics – Toxicity prevention, safe formulation protocols, dosage precision, side effect minimization, therapeutic assurance. • **M21U4 ?????????????? ????? ??????????? ??????, ???? ??????? ??? ????????? – Kuzhanthaikalukkana Siddha Marunthugalil Mooliga, Thathu matrum Jeeva Porutkal -Herbal, Mineral, and Animal Products in Pediatric Formulations** 21.4.1 Overview of Herbal, Mineral, and Animal Products in SiddhaPediatrics – Ingredient diversity, pediatric formulation foundation, traditional materia medica, health concern targeting. 21.4.2 Importance of Herbomineral and Animal Products in Pediatric Management – Growth promotion, nutritional correction, immune support, therapeutic versatility in child care. 21.4.3 Therapeutic Classification of Herbomineral Products – Digestive support agents, respiratory aids, immune boosters, neurodevelopmental enhancers, classification by action. 21.4.4 Preparation of Herbal and Mineral Pediatric Formulations – Child-specific dosage design, safety protocols, pharmaceutical standardization, pediatric Siddha preparation techniques. 21.4.5 Case Studies on Herbomineral Formulations in Pediatric Care – Clinical outcome documentation, successful pediatric treatments, holistic management illustration, formulation efficacy examples.					
22	**M-22 ?????????????? ??????? ??????????? ??????? ???????? ??????? Kuzhanthaigalukkaana Marunthu Seimuraigal Mattrum Sikitchai Muraigal (Siddha Pharmaceutics and Therapeutics for Pediatrics**	2	10	20	30	60

This module focuses on internal and external Siddha formulations tailored for pediatric systemic, neurological, skin, and developmental disorders. It includes safety protocols, dosage guidelines, formulation techniques, case-based applications, and integrative approaches with modern medicine, emphasizing GMP standards, raw material quality, and child-appropriate pharmaceutical practices.

• **M22U1 ?????????????? ????? ??? ?????????? - Kuzhanthaikalukkana Siddha Ul Marunthugal -Internal Siddha Formulations for Pediatrics**

22.1.1 Siddha Formulations for Pediatric Systemic Diseases – Internal medicines, immune-boosting actions, systemic disease control, complication prevention, holistic child care.

22.1.2 Siddha Formulations for Pediatric Neurological Disorders – Cognitive enhancement, epilepsy support, developmental delay remedies, neurological function regulation.

22.1.3 Siddha Formulations for Pediatric Skin Disorders – Eczema relief, rash treatment, dermatitis correction, internal balancing, dermatological health restoration.

22.1.4 Siddha Formulations for Pediatric Developmental Disorders – Growth promotion, neuro-motor support, cognitive stimulation, child development enhancement.

22.1.5 Safety and Dosing Guidelines for Internal Siddha Formulations – Age-specific dosage, toxicity prevention, safe administration protocols, pediatric therapeutic efficacy.

• **M22U2 ?????????????? ????? ???? ?????????? - Kuzhanthaikalukkana Siddha Veli Marunthugal - External Siddha Formulations for Pediatrics**

22.2.1 External Formulations for Pediatric Skin Disorders – Herbal oils, pastes, powders, eczema and rash relief, dermatological soothing and healing.

22.2.2 External Formulations for Pediatric Eye & Ear Disorders – Topical applications, medicated oils, anti-inflammatory treatments, gentle eye and ear care.

22.2.3 External Formulations for Pediatric Orthopedic and Musculoskeletal Disorders

– Bone and muscle pain relief, joint support compresses, fracture management, medicated oil therapy.
22.2.4 Safety and Efficacy of External Formulations – Pediatric formulation safety, side effect minimization, external remedy effectiveness, child-friendly application assurance.
22.2.5 Application Techniques for External Siddha Remedies – Oil and poultice techniques, optimal absorption methods, dosage precision, pediatric therapeutic delivery.

• **M22U3 ?????????????????????? ???? ??????????? ???????? ?????????? – Kuzhanthaikalukkundagum Podhu Noigalukkana Maruthuva Vazhimuraigal -Siddha Treatment Protocol for Common Pediatric Conditions**

22.3.1 Siddha Management of Common Pediatric Ailments – Respiratory and digestive care, child-specific remedies, herbal protocols, traditional therapeutic frameworks.
22.3.2 Siddha Management of Systemic Pediatric Conditions – Asthma and diabetes control, holistic formulations, long-term systemic balance, Siddha lifestyle integration.
22.3.3 Case Studies of Siddha Treatment Success in Pediatric Diseases – Clinical outcome review, traditional therapy effectiveness, practical insights, evidence-based applications.
22.3.4 Integrative Approaches with Modern Medicine – Dual-system care coordination, Siddha-modern synergy, chronic and acute condition integration, complementary treatment protocols.
22.3.5 Pediatric Treatment Plans and Dosing Guidelines – Siddha prescription planning, dosage precision, child-specific formulations, structured therapeutic follow-up.

• **M22U4 ?????????????? ????? ?????????? ??????????? – Kuzhanthaikalukkana Siddha Marunthugal Seimuraigal -Practical Preparation of Pediatric Siddha Formulations**

22.4.1 Raw Material Selection and Processing – Ingredient sourcing, purification protocols, herbal and mineral quality control, pediatric formulation safety assurance.
22.4.2 Pediatric Siddha Formulations Preparation – *Ilagam, Chooranam, Kudineer*

	preparation, hands-on formulation guidance, child-friendly dosage calibration. 22.4.3 Standardization and Quality Control – Potency assurance, uniform preparation protocols, formulation stability, pediatric safety validation. 22.4.4 Packaging and Labeling for Pediatric Formulations – Label accuracy, dosage instructions, storage guidelines, formulation integrity maintenance. 22.4.5 Good Manufacturing Practices (GMP) in Pediatric Formulations – GMP adherence, hygiene protocols, production compliance, regulatory alignment for pediatric safety.					
		4	**20**	**40**	**60**	**120**

Semester No : 6

2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
23	**M-23 ??????? ????? ???????? ?????? ????????? ??????? ????????????? Kuzhanthaigal Siddha Maruthuvamanaigalai Niruvuthal Matrrum Nirvagithal (Establishing and Managing Pediatric Siddha Hospitals)** **This module outlines the legal, infrastructural, financial, and operational frameworks for establishing and managing Siddha pediatric hospitals. It includes NABH accreditation, quality and safety protocols, digital health integration, marketing strategies, and sustainability models. Emphasis is placed on regulatory compliance, patient-centered care, and long-term growth of**	2	10	20	30	60

Siddha pediatric services.

• **M23U1 ?????????? ????? ??????????????? ?????????? ??????? ????????????? ????????????? - Kuzhanthaigal Siddha Maruthuvamanaikkana Thittamidal matrum Ulkattamaippai Uruvaakkuthal - Hospital Planning and Infrastructure for Pediatric Siddha Hospitals**

23.1.1 Legal and Regulatory Compliance – Health legislation adherence, licensing procedures, hospital accreditation norms, regulatory framework integration.

23.1.2 Infrastructure and Facilities Planning – Pediatric ward design, diagnostic and therapy space allocation, child-centric facility development.

23.1.3 Human Resources and Staffing – Medical and administrative recruitment, staff retention strategies, continuous professional development.

23.1.4 Technology and Accessibility – EMR systems, telemedicine integration, digital hospital management, special-needs accessibility provisions.

23.1.5 Sustainability and Supply Management – Green hospital practices, essential drug and supply procurement, ICU and emergency service establishment.

• **M23U2 ?????????? ??????? ??????: QCI, NABH ??????? ???? ??????????? - Angegaram matrum Urimam: QCI, NABH matrum Arasu Vidhimuraigal -Accreditation and Licensing: QCI, NABH, and Government Norms**

23.2.1 Accreditation Processes and Requirements – QCI and NABH overview, *Siddha* pediatric hospital eligibility, accreditation framework understanding.

23.2.2 Application and Approval Process – NABH application steps, documentation preparation, approval navigation, regulatory interface protocols.

23.2.3 Quality Control and Safety Protocols – Infection control guidelines, medical waste management, safety protocol implementation, hospital quality measures.

23.2.4 Legal and Regulatory Compliance – Fire safety standards, environmental and labor law adherence, *Siddha* sector policy alignment, legal frameworks.

23.2.5 Maintaining Accreditation and Continuous Improvement – Staff training, periodic license renewal, audit compliance, continuous quality enhancement strategies.

• **M23U3 ??????????? ?????????? ????? ?????????? ??????? ????**

	???????? ???????? – Maruthuvamanai Thittangalai Sandhai Paduthuthal matrum Nidhi Aadharangali Thirattal - Marketing and Financing Strategies for Hospital Projects 23.3.1 Business and Financial Planning – Pediatric hospital business models, budget forecasting, capital investment strategies, financial risk assessment. 23.3.2 Hospital Financing and Government Schemes – AYUSH financing programs, subsidy utilization, loan access, public-private partnership development. 23.3.3 Marketing and Branding – Digital outreach strategies, hospital brand identity, *Siddha* pediatric service promotion, online engagement tools. 23.3.4 Local Marketing and Patient Referral Networks – Community program design, local campaign execution, inter-hospital referral collaboration, regional patient access. 23.3.5 Pricing Strategies and Affordability – Cost-effective service models, pricing balance, affordability assurance, patient-centric financial planning. • **M23U4 ?????????? ????????????: ?????????????, ???????? ??????? ???????? – Maruththuvamanai Seiyalpadugal: Melanmai matrum Valarchi -Hospital Operations: Execution, Management, and Growth** 23.4.1 Operational and Patient Care Management – Daily hospital operations, pediatric care pathways, clinical governance systems, patient safety assurance. 23.4.2 Staff and Resource Management – Workforce scheduling, performance evaluation, revenue cycle control, hospital expenditure oversight. 23.4.3 Data-Driven Decision-Making – Healthcare analytics utilization, service optimization, patient feedback integration, continuous quality improvement. 23.4.4 Partnerships and Service Expansion – Pediatric specialty diversification, insurance collaborations, cashless service models, partnership frameworks. 23.4.5 Sustainable Growth and Long-Term Planning – Strategic planning, cost-innovation balance, patient-centric models, pediatric hospital sustainability roadmap.					
24	**M-24 ?????? ???????? ????? ??????? ???????????????? ????? ????????? ??????? ???????????Thozhil Munaivil Siddha Kuzhanthai Maruthuvathirkana Puthiya Ukthigal and Vaipugal (Innovation and Oppertunities in Siddha Pediatric Entrepreneurship)**	2	10	20	30	60

This module emphasizes entrepreneurship, innovation, and industrial integration in Siddha pediatric healthcare. Topics include formulation design, telemedicine, wellness center setup, regulatory compliance, and global export strategies. Learners gain insights into product development, government incentives, international marketing, and the creation of Siddha-based pediatric digital and school wellness programs.

• **M24U1 ??????? ????????? ??????????? ???????????? ??????? ????? ???????????????? ????????????? - Marunthu Thayarippu Niruvanangalai Uruvaakkuthal matrum Pudhiya Marunthukalukkana Voippugal -Pharmaceutical Development and New Product Opportunities**

24.1.1 Setting up Pediatric Siddha Pharmaceutical Units – Manufacturing infrastructure planning, equipment setup, personnel requirements, pediatric drug production workflow.

24.1.2 Identifying Market Gaps and Product Development – Pediatric care needs assessment, unmet demand analysis, Siddha formulation innovation, product development pipeline.

24.1.3 Formulation and Product Design – Pediatric dosage forms, syrup and powder formulation, taste masking, age-appropriate delivery systems.

24.1.4 Regulatory and Compliance – Siddha manufacturing laws, licensing protocols, clinical trial guidelines, pediatric product safety regulations.

24.1.5 Product Launch and Distribution – Marketing strategies, packaging and labeling compliance, distribution channel setup, pediatric Siddha product launch.

• **M24U2 ??????????????????, ???? ????????????? ???? ?????????? ??????? ??????????? - Marunthu Porutkal, Unavu Porutkalukkana Arasu Maaniyamgal matrum Opputhalgal -Government Subsidies and Product Approval for Pharmaceuticals and Foods**

24.2.1 Government Subsidy Programs for Siddha Products – Central and state subsidy schemes, development grants, pediatric Siddha product funding support.

24.2.2 Eligibility and Application for Financial Support – Grant eligibility criteria,

subsidy application procedures, startup support mechanisms, funding documentation.
24.2.3 Navigating Regulatory Bodies for Approvals – AYUSH, FSSAI, CDSCO regulatory protocols, pediatric product certification, clinical and food product guidelines.
24.2.4 Product Approval and Compliance – Approval filing for drugs and nutraceuticals, packaging standards, labeling norms, pediatric safety regulations.
24.2.5 Tax Incentives and Government Contracts – Tax exemption schemes, public procurement processes, government supply chain integration, pediatric Siddha product tenders.

• **M24U3 ????? ??????? ???????? ????????????? ???????? ??????? ??????? ????? ????????????? – Siddha Kuzhanthai Maruthuva Porutkalukkana Ettrumadhi matrum Sarvadesa Voippugal -Export Opportunities and Global Market for Siddha Pediatric Products**

24.3.1 Global Demand for Siddha Pediatric Products – International market assessment, pediatric Siddha product demand analysis, global export potential evaluation.
24.3.2 Regulations and Compliance – Export documentation, international regulatory requirements, quality certifications, compliance with global pharmaceutical standards.
24.3.3 International Market Exploration – Target market identification, Asia–Europe–North America opportunities, distributor and partner networking.
24.3.4 Building an Export Strategy – Export planning, logistics coordination, pediatric product packaging, international transportation setup.
24.3.5 Export Incentives and Marketing – Government export support schemes, subsidy access, digital promotion, international branding of Siddha pediatric products.

• **M24U4 ??????? ????? ????????????? ????????? ?????????? – Kuzhanthai Siddha Maruthuvathil Pudhumaiyana Muyarchigal -Innovative Ventures in Pediatric Siddha Care**

24.4.1 Launching a Pediatric Siddha Telemedicine Service – Siddha e-consultation frameworks, pediatric virtual care models, digital follow-up protocols.
24.4.2 Establishing Pediatric Siddha Wellness Centers – Holistic care models,

	pediatric preventive services, community Siddha wellness integration. 24.4.3 Developing Mobile Apps for Siddha Health Tracking – Siddha-based digital tools, pediatric health monitoring apps, parent-guided care platforms. 24.4.4 Innovations in Pediatric Siddha Therapy and Rehabilitation – New therapeutic models, Siddha rehabilitation protocols, care innovations for special pediatric needs. 24.4.5 Creating Siddha-Based Pediatric Wellness Programs for Schools – School health initiatives, Siddha preventive modules, dietary and lifestyle-based pediatric wellness education.					
		4	**20**	**40**	**60**	**120**
		16	**80**	**160**	**240**	**480**

Paper No : 4 (Essentials in Pediatrics)

Semester No : 3

2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
25	**M-25 Neonatology, Immunization and Hematology** **This module covers newborn physiology, prematurity, jaundice, and neonatal respiratory and neurological disorders. It includes fundamentals of immunity, immunodeficiency, vaccination types, schedules, and safety. Emphasis is also placed on hematopoiesis, pediatric anemias, hemolytic and bleeding disorders, and platelet abnormalities. Siddha and modern approaches guide early**	2	10	20	30	60

diagnosis, intervention, and long-term pediatric care.

• **M25U1 Neonatology in Pediatric Care**

25.1.1 Normal Newborn Physiology – Assessment of healthy newborns, identification of normal physical characteristics, vital signs, Apgar score, thermoregulation, initiation of breastfeeding, routine newborn care.
25.1.2 Prematurity and Low Birth Weight – Clinical features of prematurity, classification by birth weight and gestational age, early interventions, feeding challenges, thermoregulation, infection risks, growth monitoring.
25.1.3 Neonatal Jaundice and Its Management – Causes of jaundice, physiological vs. pathological types, bilirubin metabolism, risk factors, Kramer's scale, phototherapy, complications, Siddha supportive measures.
25.1.4 Neonatal Respiratory Disorders – Neonatal respiratory distress syndrome, meconium aspiration, transient tachypnea, respiratory assessment signs, diagnostic tools, oxygen therapy, Continous positive airway pressure (CPAP), supportive care.
25.1.5 Neurological Conditions in Neonates – Neonatal seizures, hypoxic-ischemic encephalopathy, intracranial hemorrhage, abnormal tone, neuroimaging, anticonvulsants, Siddha neurotonics, long-term developmental follow-up.

• **M25U2 Basic Concepts of Immunization**

25.2.1 Concept of Immunity – Innate immunity, adaptive immunity, immune cell types, antigen recognition, primary and secondary responses, barriers to infection, immune memory.
25.2.2 Immunodeficiency Disorders – Primary immunodeficiencies, secondary immunodeficiencies, recurrent infections, growth failure, diagnostic criteria, immunoglobulin testing, early screening tools.
25.2.3 Basics of Immunization – Active immunity, passive immunity, role of adjuvants, seroconversion, herd immunity, vaccine efficacy, immunization schedules, booster concepts.
25.2.4 Types, Route, and Storage of Vaccination – Live vaccines, killed vaccines, toxoid vaccines, subunit vaccines, intramuscular, subcutaneous, oral routes, cold chain, vaccine vial monitor.
25.2.5 Principle and Adverse Events Following Immunization – Immunization

mechanisms, adverse event classification, monitoring systems, minor and serious reactions, caregiver education, documentation, safety surveillance.

• **M25U3 Immunization Schedule According to IAP/National Immunization Program**

25.3.1 BCG, Hepatitis B Vaccine – Dose schedules, age of administration, routes, catch-up immunization, contraindications, post-vaccination care, prevention of tuberculosis and hepatitis B.

25.3.2 Mumps, Measles, Rubella (MMR) Vaccine – Recommended age, number of doses, spacing intervals, adverse effects, outbreak control, contraindications, immunization in delayed cases.

25.3.3 DPT, Meningococcal Vaccine – Diphtheria, pertussis, tetanus dose schedule, booster timing, meningococcal conjugate vaccine, routine administration, infection control outcomes.

25.3.4 Hib, HPV Vaccine – Haemophilus influenzae type B and human papillomavirus vaccine schedules, cancer prevention, eligibility criteria, catch-up strategy, safety profile.

25.3.5 Immunization in Special Situations – Vaccines for Japanese encephalitis, cholera, typhoid, COVID-19, minimum age limits, contraindications, dose adjustments, outbreak response, travel requirements.

• **M25U4 Hematological Disorders**

25.4.1 Introduction to Hematopoiesis and Anemia – Blood cell formation, hematopoietic stem cells, physiological anemia in infancy, anemia classification, red cell indices, diagnostic approach.

25.4.2 Inadequate Production – Iron deficiency anemia, congenital marrow failure, aplastic anemia, erythropoiesis defects, nutritional causes, laboratory evaluation, management principles.

25.4.3 Hemolytic Anemia and Polycythemia – Hemoglobinopathies, sickle cell disease, thalassemia, hemolysis indicators, neonatal polycythemia, splenomegaly, transfusion protocols, preventive care.

25.4.4 Hemorrhagic and Thrombotic Disorders – Hemophilia A and B, von Willebrand disease, DIC, coagulation cascade, bleeding assessment, clotting studies, therapeutic guidelines.

	25.4.5 Platelet Disorders – Immune thrombocytopenia, thrombotic thrombocytopenic purpura, platelet count interpretation, bleeding manifestations, bone marrow evaluation, pharmacologic and supportive treatment.					
26	**M-26 Disorders of Respiratory System and Cardiovascular System** **This module explores pediatric respiratory and cardiac physiology, symptoms, infections, and chronic conditions including asthma, pneumonia, tuberculosis, and cystic fibrosis. It also covers congenital and acquired heart diseases, heart failure, and arrhythmias. Emphasis is on diagnosis, imaging, Siddha and modern therapies, and long-term management of cardiopulmonary pediatric conditions.** • **M26U1 Developmental Physiology and Common Respiratory Illness** 26.1.1 Developmental Physiology – Surfactant function, surface tension dynamics, fetal gas transport, initiation of respiration, neonatal pulmonary adaptation, oxygen exchange, lung compliance. 26.1.2 Common Respiratory Symptoms – Cough, expectoration, dyspnea, epistaxis, hemoptysis, respiratory sounds, rattling, wheezing, stridor, clinical evaluation, symptom-based differentials. 26.1.3 Upper Respiratory Tract Infection – Nasopharyngitis, acute tonsillopharyngitis, recurrent sore throat, fever, lymphadenopathy, conservative management, antibiotic guidelines, complication prevention. 26.1.4 Lower Respiratory Tract Infection – Epiglottitis, laryngitis, laryngotracheobronchitis, bronchiolitis, airway obstruction, fever, respiratory distress, hospitalization criteria, supportive care. 26.1.5 Bronchial Asthma & Pneumonia – Bronchial asthma triggers, wheeze, breathlessness, pneumonia causes, cough, fever, auscultation findings, antibiotic therapy, inhalation support. • **M26U2 Respiratory Disorders** 26.2.1 Tuberculosis – Etiology, pathophysiology, clinical features, Mantoux test,	2	10	20	30	60

chest X-ray findings, antitubercular therapy, contact tracing, treatment monitoring.
26.2.2 Cystic Fibrosis – Genetic mutations, autosomal recessive inheritance, multisystem involvement, respiratory and gastrointestinal symptoms, sweat chloride testing, enzyme replacement, multidisciplinary management.
26.2.3 Foreign Body Aspiration & Suppurative Lung Disease – Sudden onset cough, choking episodes, radiographic localization, bronchoscopy retrieval, lung abscess, bronchiectasis, antimicrobial therapy.
26.2.4 Chronic Obstructive Pulmonary Disease – Pediatric COPD, interstitial lung disease, environmental exposures, clinical signs, spirometry, long-term oxygen therapy, supportive care.
26.2.5 Investigations for Respiratory Illnesses – Chest X-ray interpretation, pulmonary function tests (PFTs), bronchoscopy indications, diagnostic yield, safety protocols, imaging correlation.

• **M26U3 Cardiovascular Disorders**

26.3.1 Congestive Heart Failure – Etiology, left and right heart failure features, tachypnea, hepatomegaly, poor feeding, echocardiographic findings, pharmacologic therapy, fluid management.
26.3.2 Acquired Heart Disease – Rheumatic heart disease, acute rheumatic fever, infective endocarditis, Jones criteria, murmur evaluation, antibiotic prophylaxis, valve involvement.
26.3.3 Myocardial Diseases – Myocarditis, dilated and hypertrophic cardiomyopathy, viral causes, ECG changes, echocardiography, medical management, long-term follow-up.
26.3.4 Anomalies of the Aortic Arch and Pulmonary Arterial Hypertension – Aortic arch malformations, vascular rings, cyanosis, right ventricular hypertrophy, echocardiographic assessment, pulmonary vasodilators.
26.3.5 Cardiac Arrhythmias – Supraventricular tachycardia, bradycardia, palpitations, ECG interpretation, electrophysiological studies, antiarrhythmic drugs, emergency stabilization.

• **M26U4 Congenital Heart Diseases**

26.4.1 Classification of Congenital Heart Diseases – Structural heart defects, cyanotic and acyanotic categories, shunt direction, physiological consequences,

	diagnostic framework, surgical relevance. 26.4.2 Acyanotic Congenital Heart Disease, Left to Right Shunt – Atrial septal defect, ventricular septal defect, patent ductus arteriosus, murmur characteristics, pulmonary overcirculation, medical and surgical options. 26.4.3 Acyanotic Congenital Heart Disease, Regurgitation, Obstructive – Mitral valve prolapse, coarctation of aorta, pulmonary valve stenosis, pressure gradient evaluation, echocardiographic findings, intervention timing. 26.4.4 Cyanotic Congenital Heart Disease, Reduced Pulmonary Flow – Tetralogy of Fallot, tricuspid atresia, Ebstein anomaly, cyanosis, clubbing, hypercyanotic spells, surgical correction strategies. 26.4.5 Cyanotic Congenital Heart Disease, Increased Pulmonary Flow – Transposition of great arteries, truncus arteriosus, heart failure signs, oxygen desaturation, diagnostic imaging, staged repair techniques.					
		4	**20**	**40**	**60**	**120**

Semester No : 4

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
27	**M-27 Gastrointestinal system and Renal system** **This module covers pediatric gastrointestinal illnesses including diarrhea, hernia, and IBD; hepatic conditions like hepatitis, liver failure, and tumors; and renal disorders such as glomerulonephritis, renal failure, and urinary infections.**	2	10	20	30	60

Emphasis is placed on clinical features, investigations, imaging, Siddha and modern treatments, and long-term care for systemic pediatric conditions.

- **M27U1 Gastrointestinal Disorders**

27.1.1 Diarrheal Illnesses – Acute watery diarrhea, dysentery, persistent and chronic diarrhea, etiological agents, dehydration assessment, rehydration therapy, zinc supplementation, hygiene practices.
27.1.2 Hernia – Inguinal hernia, umbilical hernia, clinical signs, reducibility, incarceration risk, surgical indications, non-operative observation, postoperative care protocols.
27.1.3 Inflammatory Bowel Disease – Ulcerative colitis, Crohn's disease, chronic inflammation, abdominal pain, blood in stool, endoscopy findings, immunosuppressive therapy, relapse prevention.
27.1.4 Ano-rectal Disorders – Anal fissure, hemorrhoids, pilonidal sinus, rectal bleeding, pain during defecation, conservative care, surgical indications, recurrence prevention.
27.1.5 Common Gastrointestinal Illnesses – Gastroesophageal reflux, functional abdominal pain, cyclic vomiting, constipation, appendicitis, diagnostic tools, therapeutic approaches, dietary modification.

- **M27U2 Hepatobiliary Diseases**

27.2.1 Hepatitis – Viral hepatitis, autoimmune hepatitis, drug-induced liver injury, jaundice, hepatomegaly, liver enzymes, antiviral therapy, complication monitoring.
27.2.2 Diseases of the Peritoneum – Ascites, peritonitis, abdominal distension, fever, tenderness, paracentesis, antibiotic therapy, supportive management.
27.2.3 Liver Diseases – Acute liver failure, chronic liver disease, portal hypertension, cholelithiasis, hepatic encephalopathy, pathophysiology, clinical signs, intervention strategies.
27.2.4 Liver Abscess & Liver Tumor – Pyogenic and amebic liver abscess, hepatoblastoma, imaging features, drainage techniques, chemotherapy, surgical options.
27.2.5 Investigations – Liver function tests (LFTs), ultrasound, Fibroscan,

	endoscopy, biochemical markers, hepatic imaging interpretation, disease monitoring protocols. • **M27U3 Disorders of the Kidney** 27.3.1 Congenital Anomalies of Kidneys – Cystic kidney disease, renal dysplasia, hydronephrosis, urinary tract malformations, antenatal diagnosis, imaging, genetic screening, surgical planning. 27.3.2 Glomerular Disease – Glomerulonephritis, IgA nephropathy, Alport syndrome, hematuria, proteinuria, renal biopsy, immunosuppressive therapy, prognosis assessment. 27.3.3 Renal Failure – Acute kidney injury (AKI), chronic kidney disease (CKD), end-stage renal disease (ESRD), uremic symptoms, dialysis, renal transplantation, monitoring. 27.3.4 Tubulointerstitial Disease – Pyelonephritis, tubulointerstitial nephritis, acute tubular necrosis, fever, flank pain, urinalysis, imaging studies, antibiotic protocols. 27.3.5 Systemic Vasculitis and Lupus Nephritis – Systemic lupus erythematosus, vasculitic syndromes, renal involvement, complement levels, immunologic markers, corticosteroids, long-term renal care. • **M27U4 Disorders of the Urinary Tract** 27.4.1 Infections – Urinary tract infections (UTIs), cystitis, urethritis, pyelonephritis, fever, dysuria, urine culture, antimicrobial therapy, recurrence prevention. 27.4.2 Vesicoureteral Reflux – Pathophysiology, grading of reflux, imaging modalities, recurrent UTI risk, prophylactic antibiotics, surgical and non-surgical interventions. 27.4.3 Voiding Disorders – Daytime incontinence, urgency, enuresis, dysfunctional voiding, behavioral therapy, bladder training, pharmacologic management. 27.4.4 Renal Calculi – Pediatric nephrolithiasis, metabolic causes, hematuria, ultrasound detection, dietary prevention, hydration, lithotripsy, surgical removal. 27.4.5 Investigations – Renal function tests, urine microscopy, culture, imaging techniques, ultrasound, DMSA scan, voiding cystourethrogram (VCUG), diagnostic pathways.					
28	**M-28 Neurological & Neuromuscular disorders, Musculoskeletal system**	2	10	20	30	60

This module addresses pediatric neurological and musculoskeletal conditions including seizures, stroke, cerebral palsy, muscular dystrophies, arthritis, and skeletal deformities. Emphasis is on congenital anomalies, infections, movement disorders, neuromuscular transmission defects, and orthopedic challenges. Management integrates early diagnosis, neuro-rehabilitation, physiotherapy, genetic evaluation, and supportive Siddha-modern strategies for holistic pediatric care.

- **M28U1 Neurological Disorders I**

28.1.1 Congenital Anomalies – Brain malformations, craniosynostosis, structural defects, genetic syndromes, neuroimaging, developmental delay, surgical correction, genetic counseling.
28.1.2 Seizures – Febrile seizures, epilepsy, status epilepticus, unprovoked seizures, EEG findings, acute management, antiepileptic drugs, long-term monitoring.
28.1.3 Headaches – Migraine, tension-type headache, secondary headache causes, aura, triggers, pharmacologic treatment, lifestyle modification, preventive care.
28.1.4 Encephalopathies – Cerebral palsy, autoimmune encephalitis, global developmental delay, hypotonia, multidisciplinary care, physiotherapy, early intervention.
28.1.5 Demyelinating Disorders – Optic neuritis, transverse myelitis, multiple sclerosis, motor and sensory deficits, MRI criteria, immunomodulatory therapy, relapse prevention.

- **M28U2 Neurological Disorders II**

28.2.1 Stroke – Ischemic and hemorrhagic stroke, Bell’s palsy, raised intracranial pressure, hemiparesis, neuroimaging, emergency care, neurological outcomes.
28.2.2 CNS Vasculitis – Inflammatory vasculopathies, autoimmune triggers, headache, seizures, angiographic findings, immunosuppressive agents, treatment protocols.
28.2.3 CNS Infections – Pyogenic meningitis, viral meningoencephalitis,

neurocysticercosis, brain abscess, fever, altered sensorium, lumbar puncture, antimicrobial therapy.
28.2.4 Neuro-Rehabilitation – Spasticity management, traumatic brain injury, spinal cord injury, brachial plexus injury, physiotherapy, occupational therapy, assistive devices.
28.2.5 Movement Disorders – Chorea, dystonia, tremor, tics, Parkinsonism, basal ganglia dysfunction, diagnostic clues, pharmacologic and supportive therapies.

• **M28U3 Neuromuscular Disorders**

28.3.1 Congenital Muscle Disorders – Congenital myopathies, arthrogryposis multiplex congenita, hypotonia, joint contractures, genetic testing, early intervention, physiotherapy protocols.
28.3.2 Muscular Dystrophies – Duchenne and Becker muscular dystrophy, progressive muscle weakness, creatine kinase levels, genetic confirmation, mobility aids, corticosteroid therapy.
28.3.3 Neuromuscular Transmission Disorders – Myasthenia gravis, spinal muscular atrophy, motor neuron disease, fatigability, EMG findings, immunotherapy, respiratory support.
28.3.4 Floppy Infant – Central vs peripheral hypotonia, delayed milestones, reflex assessment, neuroimaging, genetic workup, early stimulation, multidisciplinary care.
28.3.5 Guillain-Barré Syndrome – Acute flaccid paralysis, ascending weakness, CSF analysis, nerve conduction studies, IVIG, physiotherapy, respiratory monitoring.

• **M28U4 Musculoskeletal Disorders**

28.4.1 Arthritis – Juvenile idiopathic arthritis, septic arthritis, joint swelling, morning stiffness, systemic features, laboratory markers, anti-inflammatory therapy, joint preservation.
28.4.2 Fractures – Pediatric fracture types, growth plate injuries, clinical signs, radiographic evaluation, immobilization techniques, remodeling potential, follow-up care.
28.4.3 Scoliosis and Kyphosis – Spinal curvature types, idiopathic and secondary causes, postural assessment, radiologic grading, bracing, surgical correction, rehabilitation.
28.4.4 Deformities of Foot and Toes – Congenital talipes equinovarus, metatarsus

	adductus, clinical examination, Ponseti method, serial casting, surgical indications. 28.4.5 Skeletal Dysplasia & Osteogenesis Imperfecta – Short stature, brittle bones, frequent fractures, genetic diagnosis, supportive orthopedics, bisphosphonates, mobility enhancement.					
		4	**20**	**40**	**60**	**120**
Semester No : 5						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
29	**M-29 Rheumatology and Infectious diseases** **This module addresses pediatric autoimmune disorders like SLE and vasculitis, bacterial and viral infections, rickettsial and protozoal diseases, and fungal and helminthic infestations. Emphasis is on diagnostic criteria, immune markers, antimicrobial protocols, vector control, and supportive care. Integration of clinical evaluation and therapeutic strategies ensures comprehensive infectious disease management in children.** • **M29U1 Rheumatology** 29.1.1 Systemic Lupus Erythematosus – Autoantibodies, malar rash, arthritis, nephritis, diagnostic criteria, rheumatoid arthritis features, immunosuppressive therapy, multidisciplinary care. 29.1.2 Mixed Connective Tissue Disease – Overlapping syndromes, Raynaud	2	10	20	30	60

phenomenon, myositis, arthritis, anti-U1 RNP antibodies, diagnostic markers, treatment protocols.
29.1.3 Large Vessel Vasculitis – Takayasu arteritis, limb claudication, absent pulses, elevated ESR, vascular imaging, corticosteroids, immunosuppressive agents.
29.1.4 Medium Vessel Vasculitis – Kawasaki disease, polyarteritis nodosa, mucocutaneous signs, fever, coronary artery aneurysm, IVIG, systemic inflammation control.
29.1.5 Small Vessel Vasculitis – Henoch-Schönlein purpura, ANCA-associated vasculitis, palpable purpura, hematuria, gastrointestinal involvement, steroid therapy, renal monitoring.

• **M29U2 Fever and Bacterial Infectious Diseases**

29.2.1 Fever – Fever with focus, fever without focus, fever of unknown origin, temperature patterns, diagnostic evaluation, antimicrobial initiation, supportive care.
29.2.2 Gram Positive Infections – Streptococcal infections, staphylococcal infections, diphtheria, nocardiosis, Listeria monocytogenes, actinomycosis, symptomatology, antibiotic protocols.
29.2.3 Gram Negative Infections – Haemophilus influenzae, pertussis, enteric fever, Shigella, Escherichia coli, cholera, Helicobacter pylori, clinical signs, rehydration, antimicrobial therapy.
29.2.4 Spirochetal Infections – Leptospirosis, borreliosis, zoonotic transmission, febrile illness, rash, renal involvement, diagnostic tests, antimicrobial regimens.
29.2.5 Rickettsia – Scrub typhus, Q fever, eschar formation, lymphadenopathy, serologic testing, doxycycline therapy, complication prevention.

• **M29U3 Viral Infections**

29.3.1 Measles, Mumps, and Rubella – Viral etiology, fever, rash, parotitis, lymphadenopathy, Koplik spots, vaccination schedule, complication prevention, supportive therapy.
29.3.2 Roseola, Epstein-Barr, and Cytomegalovirus – Sudden high fever, rash onset, mononucleosis, hepatosplenomegaly, atypical lymphocytes, serological testing, symptomatic management.
29.3.3 Influenza, Parainfluenza, and Respiratory Syncytial Virus – Fever, cough,

	bronchiolitis, stridor, seasonal outbreaks, antiviral drugs, oxygen support, infection control. 29.3.4 Dengue, Yellow Fever, and Ebola – Hemorrhagic features, shock, myalgia, retro-orbital pain, thrombocytopenia, vector control, fluid management, outbreak preparedness. 29.3.5 Varicella-Zoster, Herpes Simplex, and Arboviruses – Vesicular eruptions, encephalitis, oral ulcers, Japanese encephalitis, chikungunya, neurotropic symptoms, antiviral treatment, immunoprophylaxis. • **M29U4 Protozoal Diseases and Fungal Infections** 29.4.1 Malaria, Leishmaniasis, and Giardiasis – Plasmodium species, kala-azar, protozoal diarrhea, fever patterns, hepatosplenomegaly, stool microscopy, antiprotozoal therapy, vector control. 29.4.2 Amebiasis, Filariasis, and Toxoplasmosis – Intestinal and extraintestinal amebiasis, lymphatic filariasis, congenital toxoplasmosis, serologic diagnosis, antiparasitic treatment, chronic sequelae. 29.4.3 Helminthiasis – Ascariasis, trichuriasis, hookworm infection, taeniasis, cysticercosis, trichinosis, echinococcosis, schistosomiasis, mass deworming, anthelminthic drugs. 29.4.4 Fungal Infections – Candidiasis, aspergillosis, Malassezia dermatitis, cryptococcosis, superficial and systemic presentations, antifungal medications, laboratory diagnosis. 29.4.5 Blastomycosis, Histoplasmosis, and Mucormycosis – Endemic mycoses, respiratory and disseminated forms, high-risk populations, imaging findings, antifungal regimens, surgical debridement.					
30	**M-30 Dermatological disorders, Endocrinesystem & Reproductive system** **This module covers pediatric skin conditions such as atopic dermatitis, psoriasis, scabies, acne, and urticaria, alongside endocrine disorders including thyroid, adrenal, diabetes, pubertal, and gonadal dysfunctions. It emphasizes clinical recognition, hormonal physiology, diagnostic tools, and management strategies,**	2	10	20	30	60

integrating dermatologic and neuroendocrine care for holistic pediatric wellness.

- **M30U1 Dermatological Disorders**

30.1.1 Atopic Dermatitis & Psoriasis – Chronic inflammatory skin disorders, eczematous lesions, plaque formation, genetic predisposition, allergens, topical corticosteroids, systemic immunotherapy.
30.1.2 Impetigo & Scabies – Bacterial skin infection, superficial pustules, crusting lesions, scabies mite infestation, pruritus, transmission, antimicrobial and antiparasitic therapy.
30.1.3 Acne Vulgaris & Tinea – Sebaceous gland inflammation, comedones, fungal dermatophytosis, erythematous scaling lesions, topical retinoids, antifungal agents, hygiene measures.
30.1.4 Urticaria & Stevens-Johnson Syndrome – Hypersensitivity reactions, wheals, angioedema, mucocutaneous erosions, drug triggers, emergency care, antihistamines, corticosteroids.
30.1.5 Molluscum Contagiosum & Vitiligo – Viral papular lesions, hypopigmented macules, immune mechanisms, dermatologic examination, cryotherapy, topical agents, psychological support.

- **M30U2 Endocrine Disorders I**

30.2.1 Physiology of Neuroendocrinology – Hypothalamic-pituitary axis, hormonal signaling pathways, neurohormone regulation, feedback mechanisms, endocrine integration, developmental endocrinology.
30.2.2 Thyroid Hormone Physiology – Thyroid hormone synthesis, secretion, transport, metabolic functions, growth influence, hypothalamic-pituitary-thyroid axis, regulatory feedback loops.
30.2.3 Thyroid Disorders – Hypothyroidism, hyperthyroidism, thyroiditis, goiter, thyroid nodules, clinical features, thyroid function tests, radionuclide imaging, pharmacological therapy.
30.2.4 Bone Mineral and Hormone Physiology – Parathyroid hormone action, vitamin D metabolism, calcitonin function, calcium-phosphate balance, bone remodeling, mineral regulation.

30.2.5 Calcium Disorders & Metabolic Rickets – Hypocalcemia, hypercalcemia, nutritional and genetic rickets, skeletal deformities, biochemical markers, calcium supplementation, vitamin D therapy.

- **M30U3 Endocrine Disorders II**

30.3.1 Hypoparathyroidism & Hyperparathyroidism – Calcium imbalance, tetany, muscle cramps, bone demineralization, PTH levels, serum calcium and phosphate, diagnostic imaging, hormone therapy.
30.3.2 Adrenal Gland Disorders – Congenital adrenal hyperplasia, adrenal insufficiency, Cushing syndrome, cortisol abnormalities, electrolyte disturbances, hormone assays, steroid replacement.
30.3.3 Diabetes Mellitus – Type 1 and type 2 diabetes, polyuria, polydipsia, weight loss, blood glucose monitoring, insulin regimens, dietary management.
30.3.4 Complications of Diabetes Mellitus – Diabetic ketoacidosis, hypoglycemia, nephropathy, neuropathy, retinopathy, glycemic control strategies, long-term surveillance, complication prevention.
30.3.5 Obesity – Excessive weight gain, body mass index assessment, dietary patterns, sedentary lifestyle, comorbidities, behavioral therapy, exercise interventions.

- **M30U4 Reproductive Disorders**

30.4.1 Pubertal Development – Tanner staging, precocious puberty, delayed puberty, hormonal axis evaluation, bone age assessment, endocrine therapy, psychosocial support.
30.4.2 Female Gonad Disorders – Ovarian hypofunction, primary amenorrhea, pubertal delay, estrogen deficiency, hormonal assays, imaging studies, hormone replacement therapy.
30.4.3 Male Gonad Disorders – Testicular hypofunction, cryptorchidism, gynecomastia, micropenis, androgen levels, ultrasound evaluation, surgical and hormonal management.
30.4.4 Gynecological Issues – Prepubertal vaginal bleeding, breast development concerns, amenorrhea, genital examination, hormonal profile, multidisciplinary

	assessment, psychosocial counseling. 30.4.5 Genetic Disorders – Turner syndrome, Klinefelter syndrome, chromosomal anomalies, dysmorphic features, endocrine and fertility implications, genetic testing, lifelong follow-up.					
		4	**20**	**40**	**60**	**120**

Semester No : 6

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
31	**M-31 Oncology and Metabolic disorders** **This module explores pediatric cancers like leukemias, lymphomas, brain tumors, and germ cell neoplasms, alongside inborn errors of metabolism including PKU, MSUD, Gaucher, and Tay-Sachs disease. Emphasis is on early recognition, diagnostics, chemotherapy, enzyme replacement, and dietary therapies, integrating genetic counseling and supportive care for lifelong pediatric management.** • **M31U1 Leukemia and Lymphoma** 31.1.1 Biology of Cancers – Cellular transformation, oncogenes, tumor suppressor genes, genetic mutations, carcinogenesis, pediatric malignancy patterns, molecular pathways, cancer predisposition. 31.1.2 Acute Lymphoblastic Leukemia (ALL) – Lymphoid blast proliferation, fever,	2	10	20	30	60

pallor, bleeding, bone marrow examination, chemotherapy phases, CNS prophylaxis, supportive care.
31.1.3 Acute Myelogenous Leukemia (AML) – Myeloid blast crisis, anemia, infection, organomegaly, cytogenetics, intensive chemotherapy, stem cell transplantation.
31.1.4 Chronic Myelogenous Leukemia (CML) – Philadelphia chromosome, BCR-ABL fusion gene, leukocytosis, splenomegaly, tyrosine kinase inhibitors, disease monitoring, molecular remission.
31.1.5 Lymphoma – Hodgkin and Non-Hodgkin types, lymphadenopathy, systemic symptoms, biopsy diagnosis, staging investigations, combined modality therapy.

- **M31U2 Malignant Tumors in Children**

31.2.1 Brain Tumors – Medulloblastoma, glioma, ependymoma, raised intracranial pressure, imaging techniques, neurosurgical intervention, radiotherapy, chemotherapy.
31.2.2 Neuroblastoma – Neural crest origin, abdominal mass, catecholamine secretion, metastasis patterns, histopathology, risk stratification, multimodal treatment.
31.2.3 Wilms Tumor – Renal malignancy, abdominal swelling, hematuria, ultrasonography, nephrectomy, chemotherapy regimens, prognosis factors.
31.2.4 Soft Tissue Tumors & Bone Tumors – Rhabdomyosarcoma, osteosarcoma, Ewing sarcoma, localized pain, swelling, biopsy confirmation, limb-sparing surgery, adjuvant therapy.
31.2.5 Gonadal and Germ Cell Neoplasms – Testicular and ovarian masses, alpha-fetoprotein, beta-hCG, imaging, surgical excision, chemotherapy protocols.

- **M31U3 Metabolic Disorders I**

31.3.1 Inborn Errors of Metabolism – Genetic enzyme deficiencies, metabolic pathway disruption, neonatal screening, nonspecific symptoms, diagnostic panels, supportive and targeted therapies.
31.3.2 Phenylketonuria (PKU) – Phenylalanine hydroxylase deficiency, intellectual disability, musty odor, Guthrie test, low-phenylalanine diet, lifelong dietary monitoring.

	31.3.3 Galactosemia – Galactose-1-phosphate uridyltransferase deficiency, vomiting, jaundice, hepatomegaly, reducing substances in urine, galactose-restricted diet. 31.3.4 Maple Syrup Urine Disease (MSUD) – Branched-chain ketoaciduria, sweet-smelling urine, lethargy, metabolic acidosis, amino acid quantification, protein-restricted diet, emergency care. 31.3.5 Gaucher Disease – Lysosomal storage disorder, glucocerebrosidase deficiency, hepatosplenomegaly, bone pain, anemia, enzyme replacement therapy, genetic counseling. • **M31U4 Metabolic Disorders II** 31.4.1 Tay-Sachs Disease – Hexosaminidase A deficiency, neurodegeneration, cherry-red spot, developmental regression, supportive care, palliative strategies, genetic counseling. 31.4.2 Fatty Acid Oxidation Disorders – Medium-chain acyl-CoA dehydrogenase deficiency, hypoglycemia, lethargy, fasting intolerance, metabolic crisis, dietary fat modification, emergency protocols. 31.4.3 Mitochondrial Disorders – Energy metabolism defects, lactic acidosis, muscle weakness, organ dysfunction, genetic evaluation, supportive multisystem therapy, long-term monitoring. 31.4.4 Wilson's Disease – Copper metabolism defect, Kayser-Fleischer rings, hepatic and neurological symptoms, ceruloplasmin testing, chelation therapy, low-copper diet, family screening. 31.4.5 Glycogen Storage Disorders – Enzyme deficiencies, hepatomegaly, hypoglycemia, muscle cramps, metabolic derangements, cornstarch therapy, enzyme replacement, genetic diagnosis.					
32	**M-32 Ear, Nose and Throat and Dental Disorders and Ophthalmology** **This module covers pediatric ENT disorders like otitis media, tonsillitis, and epistaxis; ophthalmologic conditions including strabismus, retinoblastoma, and ocular trauma; and dental issues such as caries, malocclusion, and tooth abscesses. Emphasis is on diagnosis, preventive care, rehabilitative strategies,**	2	10	20	30	60

and early intervention for preserving sensory and oral health in children.

• **M32U1 ENT Disorders I**

32.1.1 Acute Otitis Media – Middle ear infection, ear pain, fever, tympanic membrane changes, viral or bacterial etiology, antibiotic therapy, analgesia, recurrence prevention.

32.1.2 Chronic Otitis Media – Persistent ear discharge, tympanic membrane perforation, hearing loss, otoscopic findings, tympanostomy tubes, surgical correction, long-term follow-up.

32.1.3 Sinusitis – Acute and chronic forms, nasal congestion, facial pain, purulent discharge, sinus radiography, decongestants, antibiotics, functional endoscopic sinus surgery.

32.1.4 Tonsillitis – Sore throat, fever, tonsillar enlargement, streptococcal pharyngitis, antibiotic therapy, recurrent infections, tonsillectomy indications, postoperative care.

32.1.5 Adenoid Hypertrophy – Nasal obstruction, snoring, mouth breathing, recurrent infections, lateral neck radiograph, adenoidectomy criteria, surgical management.

• **M32U2 ENT Disorders II**

32.2.1 Epistaxis – Nasal bleeding, trauma, dry mucosa, systemic causes, anterior vs. posterior bleeds, pressure techniques, nasal packing, cauterization, recurrence prevention.

32.2.2 Laryngomalacia – Inspiratory stridor, supraglottic collapse, feeding difficulties, positional changes, flexible laryngoscopy, monitoring strategies, supraglottoplasty indications.

32.2.3 Foreign Body Aspiration – Sudden cough, choking, respiratory distress, localized wheeze, Heimlich maneuver, chest X-ray, bronchoscopy retrieval, post-removal care.

32.2.4 Mastoiditis – Postauricular swelling, fever, otalgia, displaced pinna, CT imaging, intravenous antibiotics, mastoidectomy, intracranial complication prevention.

32.2.5 Hearing Loss – Conductive and sensorineural types, delayed speech, hearing screening, tympanometry, audiometry, hearing aids, cochlear implants, early

rehabilitation.

• **M32U3 Pediatric Ophthalmology Disorders**

32.3.1 Common Ocular Infections and Inflammations – Bacterial, viral, allergic conjunctivitis, eye hygiene, transmission control, orbital cellulitis, proptosis, fever, intravenous antibiotics, surgical drainage.

32.3.2 Vision Development and Misalignment – Strabismus, esotropia, exotropia, amblyopia, cover test, corrective lenses, patching, atropine penalization, surgical correction.

32.3.3 Congenital and Developmental Conditions – Congenital cataracts, leukocoria, early surgical intervention, retinopathy of prematurity, screening schedules, laser photocoagulation.

32.3.4 Serious Ocular Diseases – Retinoblastoma, intraocular tumor, red reflex absence, enucleation, chemotherapy, glaucoma, elevated intraocular pressure, medical and surgical treatment.

32.3.5 Inflammatory and Traumatic Conditions – Optic neuritis, visual loss, pain on eye movement, corticosteroids, corneal abrasion, epithelial defect, fluorescein staining, topical antibiotics.

• **M32U4 Pediatric Dental Disorders**

32.4.1 Dental Caries and Early Childhood Caries – Tooth decay, plaque accumulation, sugar exposure, fluoride application, preventive sealants, oral hygiene education, early dental visits, restorative care.

32.4.2 Gingivitis, Periodontitis, and Enamel Hypoplasia – Gum inflammation, bleeding gums, alveolar bone loss, enamel defects, fluoride varnish, professional cleaning, cosmetic restorations, oral care reinforcement.

32.4.3 Dental Trauma and Avulsed Teeth – Chipped teeth, tooth avulsion, emergency first aid, reimplantation, dental splinting, radiographic evaluation, pulp vitality testing, follow-up protocols.

32.4.4 Malocclusion, Tooth Eruption Disorders, and Bruxism – Crowding, delayed or early eruption, nocturnal grinding, orthodontic evaluation, braces, occlusal splints, behavioral modification.

32.4.5 Tooth Abscess, Pulpitis, and Other Disorders – Toothache, periapical infection, root canal therapy, extractions, hyperdontia, ankylosis, fluorosis,

	tetracycline staining, cosmetic corrections.					
		4	**20**	**40**	**60**	**120**
		16	**80**	**160**	**240**	**480**
		64	**320**	**640**	**960**	**1920**

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

Paper No : 1 Kuzhanthai Maruthuvam - Siddha						
Semester No : 3						
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 : ???? ??????? ?????????? ????? ??????? - Paal Unnum paruvathil Varum Noigal (Diseases of Infancy and Early Childhood)						
Module Learning Objectives **(At the end of the module, the students should be able to)** Describe Siddha classifications and clinical subtypes of *Sikappu Noi.* Identify key features of neonatal disorders such as *Pooppu and Pirali.* Compare symptomatology of *Ecchi, Kulikan,* and related GI conditions. Demonstrate preparation methods of Siddha formulations for pediatric use. Interpret allergic and inflammatory pediatric disorders like *Thoodam and Sooriya Noi.* Formulate Siddha treatment strategies for neonatal and developmental conditions.						
M 1 Unit 1 ??????? ???? (Sikappu Noi) 1.1.1 Sub-classifications of *Sikappu Noi*: *Pura Sikappu, Ulikappu, Santhira Sikappu, Meelaach Sikappu, Sukkila Suronithathaal Undaakum Sikappu, Patchi Sikappu, Thooshakkuri Sikappu, Kerpakkuri Sikappu, Piranthavudan Undaakum Sikappu;* clinical features and symptom patterns. 1.1.2 *Agatheesar* Classification of *Sikappu Noi*: Sixty-four classifications of *Sikappu Noi* based on origin, site, humoural predominance and clinical implications in infants and children. 1.1.3 Etiological Types and Prognosis of *Sikappu Noi*: Congenital, dietary, climatic, infectious, seasonal, and *kanmam* origins; classification into *Theerum and Theerathu*						

forms. 1.1.4 Specific Types of *Sikappu*: *Konthalac Sikappu, Karuval Sikappu, Sooriya Sikappu, Iratha Varanan Sikappu;* features and differential characteristics. 1.1.5 *Siddha* Formulations for *Sikappu Noi*: Internal and external preparations including *Kudineer, Kuzhambu, Nei, Mathirai, Chooranam, Pugai, Poochu, and Thetripoo Kashayam* with dosage forms and routes.

References: 22,81,87

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe subtypes of Sikappu Noi and 64 Agathiyar classifications.	1	Lecture	CC	Knows-how	L&GD,DIS
CO1,CO4,CO5	Compare clinical features of Sikappu Noi subtypes and related neonatal symptoms.	1	Lecture	CAN	Knows-how	DIS,L&GD
CO1,CO3,CO7	Analyze the clinical Identification and Analysis of Various Forms of *Sikappu Noi*	3	Experiential-Learning 1.1	CAN	Does	PAL,TBL,CBL
CO1,CO3,CO7	Analyze symptoms of Sikappu noi in neonates with skin abnormalities.	3	Experiential-Learning 1.2	CAN	Does	CD,CBL,PAL
CO1,CO3,CO7	Describe the signs, complications and management of *Sikappu Noi*	3	Practical Training 1.1	CC	Does	PAL,L_VC
CO1,CO3,CO7	Classify 64 *Sikappu Noi* types based on origin and symptoms.	2	Practical Training 1.2	CK	Shows-how	PBL,TBL
CO1,CO4,CO5	Describe Sikappu causes, treatable types, and complications like Suriya Noi.	1	Lecture	CC	Knows-how	L&GD,LS,DIS

M 1 Unit 2 ?????? ????, ?????, ???? ??????? ???? ???? (Pooppu, Pirali, Therai and Alakai)

1.2.1 *Pooppu* Classification and Clinical Indicators: Six types of *Pooppu* involving periorbital swelling in neonates, with associated causative factors, clinical features and *Siddha* formulations for topical and internal use. 1.2.2 *Pirali* Types and Therapeutic Protocols: Eighteen types of *Pirali* characterized by abdominal bloating and distension in neonates, Siddha causes and interventions including external measures. 1.2.3 *Therai* Subtypes and Musculoskeletal Associations: Four major forms of *Therai* involving limb deformities or motor issues, Siddha classification and traditional manipulative therapy relevance in neonates. 1.2.4

Alakai Developmental Stages and Variants: Classification of *Alakai* into types based on *naazikai*, days, and years of growth, with related symptom manifestations and developmental anomalies. 1.2.5 Integrated *Siddha* Approach for Neonatal Disorders: Consolidated *Siddha* management for *Pooppu*, *Pirali*, *Therai* and *Alakai* using internal medications, *external therapies*, dietary guidance and preventive protocols.

References: 22,84,85,87

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Classify Etchi types and compare neonatal lymphadenopathy diagnostic features.	1	Lecture	CAN	Knows-how	L,L&GD
CO1,CO3,CO7	Analyze clinical and classical features of *Etchi Noi* in neonates.	4	Experiential-Learning 1.3	PSY-GUD	Does	CD,PAL, TBL,CBL
CO1,CO3,CO7	Analyze Siddha clinical signs of *Kuligan Noi* in neonates to aid diagnosis.	3	Experiential-Learning 1.4	CAN	Does	PAL,CD, CBL,DIS
CO1,CO3,CO6	Apply Siddha principles to diagnose and management of *Pooppu* and *Pirali*.	3	Practical Training 1.3	CAP	Shows-how	CD,SIM, CBL
CO1,CO3,CO6	Apply Siddha concepts to diagnose and manage *Therai* and *Alakai Noi*.	2	Practical Training 1.4	CAP	Knows-how	CBL,PAL ,D-BED
CO1,CO4,CO5	Describe Kuligan types and compare with neonatal pectus carinatum features.	1	Lecture	CC	Knows-how	DIS,L&G D,L

M 1 Unit 3 ?????, ????????, ??????? ?????, ??????? ??????? ???????? (Etchi, Meletchi, Etchil Roakam, Kuligan, and Azhukural)

1.3.1 *Etchi and Melecchi* Classifications and Pathophysiology: Six types of *Etchi and Melecchi* with emphasis on causes, humoural imbalance, regurgitation frequency and related Siddha understanding in neonates. 1.3.2 *Etchil Roakam* Types and Salivary Disturbances: Two types of *Etchil Roakam* with characteristic salivary flow patterns, tongue coating, humoural causation and relevant Siddha diagnosis and remedies. 1.3.3 *Kuligan* Variants and Gastrointestinal Manifestations: Eight types of *Kuligan* with signs of indigestion, bloating, abdominal discomfort and associated Siddha interventions like massage, internal drugs and diet. 1.3.4 *Azhukural* Presentations and Differential Diagnosis: Two to three types of *Azhukural* with clinical resemblance to colic disorders, features like persistent crying and feeding intolerance and Siddha diagnostic clues. 1.3.5 Siddha Therapeutics for Digestive Disorders in Neonates: Siddha treatment protocols

using internalmedicines, *patiyam,* and external techniques to manage *Etchi, Meletchi, Etchil Roakam, and Kuligan* in infants.

References: 22,82,83,85,87

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe the characteristics of poopu and explain its classification along with medications	1	Lecture	CC	Knows-how	L,L&GD
CO1,CO3,CO7	Analyze clinical signs of *Poopu Noi* and apply traditional classification methods.	3	Experiential-Learning 1.5	CAN	Does	PAL,TBL,CBL,CD
CO1,CO3,CO7	Analyze clinical signs of *Pirali Noi* and classify based on Siddha principles.	3	Experiential-Learning 1.6	CAN	Does	D,TBL,CBL,CD,PL
CO1,CO3,CO8	Identify and differentiate *Etchi, Melecchi,* and *Etchil Roakam* with Siddha principles.	3	Practical Training 1.5	CAN	Knows-how	CD,CBL,C_L
CO1,CO3,CO7	Apply Siddha principles to diagnose and manage *Kuligan* and *Azhukural.*	2	Practical Training 1.6	CAP	Shows-how	PER,PBL
CO1,CO4,CO5	Identify characteristics, classification, diagnosis, and treatment of Pirali, Azhukural.	1	Lecture	CAN	Knows-how	DIS,L&GD,L

M 1 Unit 4 ????? ????, ?????? ???? ??????? ?????/????? (Sooriya Noi, Santhira Noi, and Thoodam/Thosham)

1.4.1 Classification and Features of *Sooriya Noi and Santhira Noi*: Three types of *Sooriya Noi* and four types of *Santhira Noi* with *kutra vinai*-based pathogenesis, symptom distribution, and timing-related allergic manifestations. 1.4.2 Classification of *Thosham and Thoodam* in Children: Eight major types, twenty-five subtypes, fifty-eight extended categories, and twelve pediatric-specific forms of inflammatory swellings with clinical significance. 1.4.3 *Siddha* Management Strategies for *Thoodam and Thosham:* Formulations such as *Kuzhambu, Poochu, Mathirai, Pugai,* and supportive dietary modifications tailored to pediatric *Thoodam* conditions. 1.4.4 Preventive and Supportive Care in *Sikappu*-Related Complications: Immuno-enhancing therapies, early detection, dietary rules, seasonal regimens and regular follow-up practices in allergic pediatric conditions. 1.4.5 Case-Based *Siddha* Protocols for Pediatric Allergic Disorders: Application of Siddha-based decision pathways for *Sooriya Noi, Santhira Noi, and Thoodam* using real-case management and outcome monitoring.

References: 85

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Explore 8 and 12 types of Thodam with Siddha sub-classifications.	1	Lecture	CAN	Know	L&GD,L
CO1,CO4,CO5	Describe Therai, Alakai characteristics, classification, and Siddha medications for pediatric care.	1	Lecture	CAN	Know	L,L&GD
CO1,CO3,CO7	Analyze*Thodam* symptoms and evaluate *Ratchai/Kulisam Kattuthal* in neonatal care.	3	Experiential-Learning 1.7	CAN	Does	CD,PAL,D,CBL,C_L
CO1,CO3,CO7	Classify and analyze pediatric *Thoodam* types and management	3	Practical Training 1.7	CAN	Knows-how	D-M,PAL,CBL
CO1,CO3,CO8	Analyze *Sooriya* and *Santhira Noi* with symptoms	2	Practical Training 1.8	CAN	Knows-how	CBL,BL,PAL
CO2,CO3,CO6	Analyze clinical features and Siddha care for allergic pediatric skin disorders.	4	Experiential-Learning 1.8	CAN	Does	CD,TBL,PAL,C_L,D
CO1,CO4,CO5	Describe the Agasthiyar school of thodam classification	1	Lecture	CC	Knows-how	DIS,L&GD,L

Practical Training Activity

Practical Training 1.1 : Understanding and Managing Conditions under *Sikappu Noi*

Total Duration of the Activities: 3 Hours
This practical explores pediatric conditions classified as *Sikappu Noi* in *Siddha* medicine, including *Konthalac Sikappu, Karuval Sikappu, Sooriya Sikappu, and Iratha Varanan Sikappu.* Students will examine classical definitions, symptomatology, complications, and *Siddha* management. They will collaborate in groups to solve case simulations and visualize their findings through posters.
Instructions to Students (First 30 Minutes): Teacher will show pre-recorded video lectures or refer to flipped classroom materials covering the four types of *Sikappu Noi*.Teacher will form two peer groups, assign classical references for review, and allocate roles within each group for research, discussion, poster-making, and presentation.

Students' Activities (Next 120 Minutes – 60 min + 60 min):
Step 01 (First 60 Minutes): Students will receive pediatric case simulations representing different *Sikappu Noi* types. They will analyze signs and symptoms based on *Siddha* pathology, correlate findings with humoral imbalances, and draft preliminary *Siddha*-based management plans with guidance for prevention.
Step 02 (Second 60 Minutes): Students will design a practical poster summarizing etiology, clinical signs, complications, and *Siddha* management strategies. They will prepare for peer-sharing presentations and include patient lifestyle guidance and preventive aspects from *Siddha* classics.
Assessment (Final 30 Minutes): Teacher will assess student participation, accuracy of case interpretation, poster presentation quality, and application of *Siddha* preventive principles. Scenario-based questions will evaluate depth of understanding, supplemented by peer and self-assessment tools.

Practical Training 1.2 : Compilation and Clinical Correlation of 64 Types of *Sikappu Noi*

Total Duration of the Activities: 2 Hours
This practical guides students in a systematic compilation and categorization of the 64 types of *Sikappu Noi* as described in *Agatheesar Kuzhandhai Maruthuvam.* Students will work under teacher supervision to group conditions based on causative factors, anatomical sites, and distinguishing symptoms. The session integrates *Siddha* theory with clinical visualization for contemporary pediatric application.
Instructions to Students (First 30 Minutes): Teacher will divide students into two groups and assign *Sikappu Noi* compilation tasks under supervision. Students are expected to have pre-read the relevant chapters. They will begin compiling conditions by grouping based on origin, site, and symptoms, focusing on identifying unique signs, complications, and *Siddha* therapeutic approaches.
Students' Activities (Next 60 Minutes – 30 min + 30 min):
Step 01 (First 30 Minutes): Students will, under teacher guidance, compile the details of the 64 *Sikappu Noi* classifications. Using charts or visual tools, they will document clinical origins (intrauterine, environmental, congenital), anatomical sites (eye, skin, etc.), and associated symptoms.
Step 02 (Second 30 Minutes): Students will analyze overlaps and distinguishing features among *Sikappu Noi* types. They will prepare a short group presentation under teacher supervision, highlighting clinical significance and *Siddha* management strategies for different groupings.
Assessment (Final 30 Minutes): Teacher will assess students' compiled charts, clarity in classification, and teamwork during presentations. Checklists and oral questioning will be used to evaluate the integration of *Siddha* classical knowledge with clinical pediatric understanding. All activities will be performed under continuous teacher guidance.

Practical Training 1.3 : Clinical Diagnosis and Management of *Pooppu* and *Pirali*

Total Duration of the Activities: 3 Hours
This practical involves detailed clinical presentation and diagnostic approach to neonatal conditions *Pooppu* (6 types) and *Pirali* (18 types). Students will work under teacher supervision to observe or simulate case scenarios, identify clinical signs, classify the condition using Siddha diagnostic principles, and formulate treatment plans integrating internal medicines, external therapies, and dietary modifications.
Instructions to Students (First 30 Minutes): Teacher will guide students to review the types and causes of *Pooppu* and *Pirali.* Students will observe the simulated or real

pediatric cases under supervision, note clinical symptoms, and apply Siddha diagnostic logic to classify the conditions. Students must be prepared to present findings and suggest Siddha treatment plans.
Students' Activities (Next 120 Minutes – 60 min + 60 min):
Step 01 (First 60 Minutes): Under teacher supervision, students will analyze the clinical presentation. They will classify the type of *Pooppu* (e.g., *Seetha Pooppu, Neer Pooppu)* or *Pirali* (e.g., *Vatha Pirali, Pitha Pirali)* based on signs like eye swelling, abdominal tightness, or poor feeding.
Step 02 (Second 60 Minutes): Students will, under teacher guidance, formulate a Siddha management plan including suitable internal remedies (e.g., *Elathy Kudineer for Pirali, Sivappu Thylam for Pooppu*), external applications, dietary advice, and preventive care. They will prepare and deliver a group presentation justifying their clinical reasoning.
Assessment (Final 30 Minutes): Teacher will assess students' diagnostic accuracy, clinical reasoning during simulation, and formulation of Siddha-based treatment plans. Assessment will include case-based evaluation, Direct Observation of Procedural Skills (DOPS), practical viva, and checklist review to ensure accurate classification and management application.

Practical Training 1.4 : Clinical Identification and Siddha Management of *Therai* and *Alakai Noi*

Total Duration of the Activities: 2 Hours
This practical focuses on identifying and classifying neonatal and pediatric conditions *Therai* (4 types) and *Alakai Noi* (46 types) based on timelines of hour, day, and year. Under teacher supervision, students will analyze developmental patterns, observe models or simulated patients, and classify abnormalities. Students will formulate Siddha management strategies including external therapies, internal medications, and supportive care.
Instructions to Students (First 15 Minutes): Teacher will explain the clinical features of *Therai* and *Alakai Noi* using classical Siddha references and demonstrate models showing limb deformities and developmental milestones. Under supervision, students will identify deviations, classify them under *Therai* or *Alakai disorders*, and collaborate with peers to map timelines and symptoms accurately.
Students' Activities (Next 90 Minutes – 60 min + 30 min):
Step 01 (First 60 Minutes): Students will, under teacher guidance, analyze case examples or simulated models exhibiting limb deformities or delayed development. They will classify each case according to Siddha nosology into *Therai* or *Alakai Noi* categories based on age-specific symptom patterns.
Step 02 (Next 30 Minutes): Students will design a Siddha-based treatment plan using therapies like *Uzhichil, Sei Nei application, or Karisalai Kudineer*. They will prepare and enact a role-play presentation, explaining diagnosis and management strategies to a simulated caregiver under teacher supervision.
Assessment (Final 15 Minutes): Teacher will assess students' diagnostic classifications, appropriateness of Siddha therapies suggested, and participation in role-play activities. Checklists and case-based oral questions will be used to evaluate their understanding and clinical application of Siddha pediatric management. All activities will be carried out under teacher guidance.

Practical Training 1.5 : Clinical Diagnosis and Management of *Etchi*, *Melecchi*, and *Etchil Roakam*

Total Duration of the Activities: 3 Hours

This practical introduces students to the classification and clinical features of *Etchi* (frequent regurgitation), *Melecchi* (acidic vomiting), and *Etchil Roakam* (salivary disorders) in neonates based on Siddha texts. Under teacher supervision, students will analyze real or simulated neonatal cases, differentiate between the six types of *Etchi* and *Melecchi* and two types of *Etchil Roakam,* and propose individualized Siddha internal and external treatments through group discussion, co-learning, and role-play.
Instructions to Students (First 30 Minutes): Teacher will explain the signs and *mukutram* predominance observed in each neonatal case. Teacher will divide students into two groups and supervise their review of clinical features, correlating with Siddha classical classifications. Students will focus on symptom timing, regurgitation characteristics, salivation patterns, and associated complications, preparing summary charts for classification and management strategies.
Students' Activities (Next 120 Minutes – 60 min + 60 min):
Step 01 (First 60 Minutes): Under teacher guidance, students will analyze case vignettes or simulated patients. They will classify the condition as *Etchi, Melecchi, or Etchil Roakam* based on signs, using classical Siddha references. Students will identify the predominant *mukutram* (e.g., *Vali for Etchi, Azhal for Meletchi)* and justify their diagnostic reasoning.
Step 02 (Next 60 Minutes): Students will prepare comparative charts summarizing symptoms, *mukutram* background, and Siddha management strategies for each subtype. They will role-play a caregiver consultation under teacher supervision, explaining diagnosis, Siddha treatments such as *ilagam, Pathiyam* (diet), and external therapies. Group feedback will be encouraged to enhance co-learning.
Assessment (Final 30 Minutes): Teacher will assess clarity and accuracy of case-based diagnosis, quality and completeness of comparative charts, and role-play performance in explaining disorders to simulated caregivers. A viva voce will be conducted to evaluate understanding of Siddha pathophysiology, therapeutic applications, and clinical differentiation across the subtypes.

Practical Training 1.6 : Diagnosis and Management of *Kuligan* and *Azhukural* Disorders

Total Duration of the Activities: 2 Hours
This practical guides students in the classification, symptomatology, and Siddha treatment of the eight types of *Kuligan* (neonatal colic/gastric disturbance) and 2–3 types of *Azhukural* (abdominal complaints). Under teacher supervision, students will analyze real or simulated neonatal cases, identify clinical features like bloating and feeding difficulties, and apply Siddha interventions such as massages, internal medicines, and *Pathiyam.* Problem-based case solving and mini-presentations will help consolidate learning.
Instructions to Students (First 30 Minutes): Teacher will explain the symptoms, diagnostic criteria, and classical *Siddha* references related to *Kuligan* and *Azhukural.* Teacher will divide students into two groups, facilitating discussion on differences and overlaps in presentations. Students will observe or participate in a simulated practical session demonstrating traditional abdominal massage and internal remedy preparation. Students must prepare to present their diagnostic approach and Siddha-based management plan.
Students' Activities (Next 60 Minutes):
Activity 01: Under teacher supervision, each group will work through assigned neonatal case scenarios showing signs of *Kuligan or Azhukural.* Students will identify the specific disorder type based on signs like bloating, distension, and irritability. Using Siddha principles, they will formulate a management plan involving abdominal massage, dietary modifications *(Pathiyam),* and internal herbal remedies. Students will deliver a short group presentation explaining diagnostic reasoning and treatment strategy with classical support.

Assessment (Final 30 Minutes): Teacher will assess each group's diagnostic accuracy, practical skills in massage techniques and remedy identification, and the clarity of their presentations. A brief viva will evaluate the understanding of type-specific features and Siddha treatment planning. Participation in problem-solving and team-based learning activities will also be considered in the final evaluation.

Practical Training 1.7 : Clinical Classification and Siddha Management of *Thoodam* Disorders

Total Duration of the Activities: 3 Hours
This practical involves a clinical deep dive into *Thoodam* disorders, guiding students to identify and classify inflammatory swellings into their 8 major types, 25 subtypes, and 12 pediatric-specific variants from classical Siddha texts. Using pre-class learning materials and simulated or real cases, students will analyze *kuttram* involvement, symptomatology, and anatomical presentation. They will then suggest appropriate Siddha internal and external therapies through collaborative clinical simulation and presentation.
Instructions to Students (First 30 Minutes): Teacher will distribute pre-shared digital materials and classical references on *Thoodam* classifications. Under supervision, students will observe live or simulated pediatric swellings. They will identify possible *Thoodam* types based on signs, humor imbalance, and anatomical site. Students must document differential diagnostic points and prepare for application through clinical reasoning and peer-based activities.
Students' Activities
Step 01 (First 60 Minutes): Students will, under teacher guidance, study 3–4 pediatric case simulations. They will identify the *Thoodam* type using Siddha diagnostic logic, *thodam* analysis, and correlate symptoms and anatomical features. Each group will document findings and map them to the 12 pediatric-specific *Thoodam* variants with classical references.
Step 02 (Next 60 Minutes): Students will demonstrate diagnosis and management through peer-assisted role play or examination of models. Each group will present a treatment plan including Siddha internal medicines, external therapies such as *Ottradam or Thylam*, and dietary measures *(Pathiyam)* suited to each *Thoodam* subtype. Philosophical justifications from Siddha texts will be included.
Assessment (Final 30 Minutes): Teacher will assess student performance based on classification accuracy, ability to apply Siddha nosology, and clinical reasoning demonstrated in role play. Charts, model demonstrations, and diagnostic skills will be observed. A brief viva will be conducted to evaluate theoretical grounding, justification of treatment protocols, and use of classical Siddha references.

Practical Training 1.8 : Classification and *Siddha* Management of *Sooriya Noi* and *Santhira Noi*

Total Duration of the Activities: 2 Hours
This practical introduces students to the Siddha classification and clinical understanding of *Sooriya Noi* (daytime allergic hives) and *Santhira Noi* (night time allergic hives) in children. After reviewing digital pre-class materials, students will engage in pediatric case discussions to identify symptom timing, *mukutram* triggers *(Azhal, Vali, Iyyam),* and therapeutic strategies. Under teacher supervision, they will classify cases, design *Siddha*-based treatments, and present comparative findings.
Instructions to Students (First 30 Minutes): Teacher will ensure all students have reviewed pre-shared digital materials on *Sooriya* and *Santhira Noi.* Teacher will present clinical or simulated pediatric cases. Students will observe symptoms, note timing, *mukutram* involvement, and be guided to identify the correct diagnosis based on

Siddha nosology. Prepare for group classification and treatment planning activities.
Students' Activities (Next 60 Minutes – 30 min + 30 min):
Step 01 (First 30 Minutes): Under teacher guidance, students will analyze a pediatric case showing migratory urticaria. They will determine whether the condition aligns with *Sooriya Noi or Santhira Noi* and use Siddha diagnostic logic to identify its type and the predominant *mukkutram* involved.
Step 02 (Next 30 Minutes): Students will be divided into two groups. Each group will prepare a Siddha-based treatment plan including internal and external remedies, dietary recommendations *(Pathiyam)*, and preventive care. They will also create a comparative chart outlining the different types and key Siddha interventions for both conditions.
Assessment (Final 30 Minutes): Teacher will evaluate the clarity and accuracy of student charts and treatment plans, as well as performance in the role-based presentations. A brief practical viva with scenario-based questions will test their classification skills, knowledge of *mukutram* pathogenesis, and the ability to apply Siddha therapies in pediatric cases.

Experiential learning Activity

Experiential-Learning 1.1 : Clinical Identification and Analysis of *Sikappu Noi* Types

Total Duration of the Activities: 3 Hours
This experiential learning activity provides students with clinical exposure to neonates presenting with digestive abnormalities, focusing on identifying various forms of *Sikappu Noi (e.g., Vikaari Sikappu, Ullu Noi Sikappu, Karuval Sikappu).* Under clinical supervision, students correlate classical *Siddha* signs with real patient presentations, enhancing diagnostic skills and clinical reasoning in neonatal digestive care through *Siddha* diagnostic frameworks.
Instructions to Students (First 30 Minutes) The teacher will provide an introduction on *Sikappu Noi* classifications from *Siddha* literature, focusing on clinical manifestations related to neonatal digestive disorders. Students will be guided on observation techniques and how to apply *Siddha* diagnostic criteria in real-time neonatal settings.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will independently observe neonatal cases in OPD/IPD with digestive disturbances. They will record clinical signs and symptoms, attempting to correlate them with specific *Sikappu Noi* types using Siddha diagnostic frameworks.
Step 02 (Second 60 Minutes) Students will analyze their case observations and compare them with classical *Siddha* references. They will differentiate between types of *Sikappu Noi* and prepare a short presentation summarizing their findings, highlighting digestive correlations and *Siddha*-based interpretations.
Assessment (Final 30 Minutes) Students will undergo case-based assessment and a practical viva, demonstrating their understanding of Sikappu Noi classifications, digestive symptom correlations, and application of *Siddha* principles in neonatal care. A checklist will be used to assess diagnostic reasoning, clinical observation skills, and clarity in presenting findings.

Experiential-Learning 1.2 : Clinical Identification and Analysis of Sikappu Noi in Neonatal Skin Disorders

Total Duration of the Activities 3 Hours
This experiential learning activity provides clinical exposure for students to observe neonatal skin abnormalities and identify corresponding *Sikappu Noi* types such

as *Konthalac Sikappu, Karuval Sikappu, Sooriya Sikappu, Iratha Varanan Sikappu, Koozippuuvan, Sengamaari Sikappu,* and *Naagach Sikappu.* Students compare *Siddha* classical descriptions with real clinical findings to refine diagnostic reasoning, thereby integrating theoretical knowledge with clinical practice in neonatal skin disorders.
Instructions to Students (First 30 Minutes) The teacher will explain *Siddha* textual references for various skin-related *Sikappu Noi* types, focusing on key diagnostic features and symptomatology. Students will be guided on how to observe clinical cases in OPD/IPD, record skin manifestations systematically, and apply *Siddha* diagnostic criteria in real-time settings.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will independently observe neonates presenting with skin abnormalities in OPD/IPD settings. They will record observed clinical signs (e.g., skin color changes, lesions) and attempt to identify *Sikappu Noi* types using *Siddha* diagnostic frameworks.
Step 02 (Second 60 Minutes) Students will correlate their clinical observations with *Siddha* literature-based signs, distinguishing between *Konthalac Sikappu, Sooriya Sikappu, Karuval Sikappu, Naagach Sikappu,* etc. They will prepare a brief case summary for each observed type and participate in peer discussions, justifying their diagnosis using both clinical findings and *Siddha* reasoning.
Assessment (Final 30 Minutes) Faculty will conduct a case-based viva to assess students' understanding of *Sikappu Noi* classifications, their ability to correlate *Siddha* concepts with skin disorders, and their competence in diagnostic analysis. A checklist and direct observation tools will be used to evaluate students' reasoning, observational accuracy, and presentation skills.

Experiential-Learning 1.3 : Clinical Observation and Diagnostic Differentiation of *Etchi Noi* in Neonates

Total Duration of the Activities 4 Hours
This experiential learning activity allows students to engage in clinical observation of neonates with subcutaneous swellings, focusing on identifying and classifying *Etchi Noi* based on Siddha diagnostic frameworks. Students observe clinical signs, correlate them with Siddha classical descriptions, and enhance their diagnostic reasoning for differentiating various types of *Etchi Noi*. Discussions will cover diagnostic challenges and comparisons with modern clinical perspectives, fostering integrative thinking in pediatric care.
Instructions to Students (First 30 Minutes) The teacher will explain the clinical features of *Etchi Noi* as per Siddha texts, including guidance on observing location, color, pain, and growth patterns of swellings. Instructions will emphasize systematic documentation and differentiation of *Etchi Noi* types, applying Siddha diagnostic reasoning in clinical settings.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will observe neonates in OPD/IPD presenting with subcutaneous swellings, recording clinical features such as location, size, color, tenderness, and progression relevant to *Etchi Noi* classification.
Step 02 (Second 60 Minutes) Students will compare clinical findings with Siddha classical descriptions of *Etchi Noi* types, categorizing cases based on diagnostic markers like pain, color changes, and texture, differentiating between the various subtypes.
Step 03 (Third 60 Minutes) Students will prepare case summaries and present their diagnostic reasoning for *Etchi Noi* classification. They will participate in peer group discussions, sharing insights, clarifying diagnostic challenges, and refining clinical reasoning through collaborative learning.
Assessment (Final 30 Minutes) Students will undergo case-based evaluation and practical viva using a structured checklist. Teacher will assess the accuracy of *Etchi Noi*

classification, the application of Siddha diagnostic frameworks, and the ability to correlate clinical presentations with traditional Siddha knowledge.

Experiential-Learning 1.4 : Clinical Observation and Diagnostic Analysis of *Kuligan Noi* in Neonates

Total Duration of the Activities 3 Hours

This experiential learning activity provides students with clinical exposure to *Kuligan Noi* in neonates, focusing on behavioral, physical, and systemic manifestations. Through clinical observation and documentation, students analyze real-world findings and compare them with Siddha classical descriptions to classify *Kuligan Noi* types, understand their pathophysiology, and apply traditional diagnostic reasoning. Faculty-led discussions help bridge classical knowledge with clinical practice for accurate diagnosis.

Instructions to Students (First 20 Minutes) The teacher will explain the key signs and symptoms of *Kuligan Noi* as per Siddha texts, guiding students on how to observe crying patterns, physical discomfort, systemic manifestations, and behavioral cues in neonates. Students will be instructed on systematic clinical observation, accurate documentation, and correlating their findings with Siddha diagnostic frameworks.

Students' Activities (70 min + 70 min = 140 minutes)

Step 01 (First 70 Minutes) Students will independently observe neonates in OPD/IPD presenting with symptoms indicative of *Kuligan Noi.* They will document clinical findings, including crying patterns, physical signs, and systemic responses, relevant to Siddha diagnostic features.

Step 02 (Second 70 Minutes) Students will analyze and compare their clinical observations with Siddha classical signs. They will classify *Kuligan Noi* types, noting clinical correlations and diagnostic challenges. Each student will prepare and present case reports, outlining their diagnostic reasoning and engage in peer discussions to compare findings, enhancing diagnostic accuracy through collaborative learning.

Assessment (Final 20 Minutes) Students will undergo a case-based assessment and practical viva using a structured checklist. Evaluation will focus on the accuracy of identifying *Kuligan Noi* types, effective application of Siddha diagnostic tools, and the ability to analyze clinical presentations in real-world settings.

Experiential-Learning 1.5 : Advanced Clinical Identification and Analysis of *Poopu Noi* in Neonates

Total Duration of the Activities 3 Hours

This experiential learning activity provides clinical exposure to neonates presenting with fungal skin lesions suggestive of *Poopu Noi*. Students will observe, document, and classify the lesions using *Siddha* diagnostic frameworks. By comparing clinical findings with classical Siddha descriptions of *Poopu Noi*, students will refine their diagnostic skills and understand the pathophysiology and modern relevance of fungal infections in neonates. Interactive discussions with faculty and peers will enhance clinical reasoning and interpretive skills.

Instructions to Students (First 15 Minutes) The teacher will provide a briefing on Poopu Noi types, explaining classical *Siddha* signs, pathogenesis, and clinical relevance to neonatal fungal infections. Instructions will emphasize observing skin lesions, noting morphological patterns, distribution, and associated symptoms, and systematic documentation aligned with Siddha classification frameworks.

Students' Activities (60 min + 75 min = 135 minutes)

Step 01 (First 60 Minutes) Students will independently observe infants in the OPD/IPD presenting with fungal skin lesions. They will record clinical signs such as lesion

morphology, distribution, discharge, and associated symptoms relevant to *Poopu Noi*. Correlating observations with Siddha classifications, students will discuss their findings in peer groups, identifying diagnostic patterns and differentiating between *Poopu Noi* types.
Step 02 (Second 60 Minutes) Students will prepare and present case-based analyses highlighting diagnostic reasoning, Siddha classification, and differential diagnosis. Peer feedback and faculty insights will guide students in refining their clinical documentation and deepening their understanding of *Poopu Noi* presentations.
Assessment (Final 30 Minutes) Students will undergo case-based assessment and practical viva, evaluated using a structured checklist. The focus will be on accurate identification of *Poopu Noi*, correct application of Siddha diagnostic principles, and clarity in clinical documentation and reasoning.

Experiential-Learning 1.6 : Clinical Analysis of *Pirali Noi* with Abdominal Distention in Neonates

Total Duration of the Activities 3 Hours
This experiential learning activity provides clinical exposure to neonatal abdominal distention, enabling students to assess cases indicative of *Pirali Noi.* Students observe, document, and classify clinical findings in line with Siddha descriptions of different *Pirali types (e.g., Neer Pirali, Vaayu Pirali).* Through comparative analysis and group discussions, students develop diagnostic reasoning skills and deepen their understanding of Siddha nosology in neonatal care.
Instructions to Students (First 20 Minutes) The teacher will provide a briefing on the types of Pirali Noi as per Siddha texts, covering etiology, signs, and classification. Students will be guided on abdominal examination techniques, including observation of distention patterns, bowel sounds, and palpation findings. Emphasis will be placed on systematic documentation and comparison with classical Siddha references.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will independently examine neonates in OPD/IPD presenting with abdominal distention. They will record clinical symptoms, abdominal findings, distention characteristics, and associated signs, focusing on identifying features of *Pirali Noi.*
Step 02 (Second 70 Minutes) Students will match their observations with Siddha classical descriptions of *Pirali types (e.g., Neer Pirali, Vaayu Pirali).* Collaborating with peers, they will classify cases, prepare clinical case summaries, and present their diagnostic reasoning. Discussions will include differential diagnoses and *Siddha*-based explanations for the observed symptomatology.
Assessment (Final 20 Minutes) The teacher will conduct a case-based viva and use a structured checklist to evaluate clinical documentation, accuracy in *Siddha* classification, and diagnostic reasoning. Feedback will focus on analytical thinking, clinical correlation, and the effective application of Siddha principles in neonatal abdominal distention cases.

Experiential-Learning 1.7 : Clinical Observation and Analysis of *Thodam Noi* and *Ratchai/Kulisam Kattuthal*

Total Duration of the Activities 3 Hours
This experiential learning activity provides students with clinical exposure to *Thodam Noi* in neonates presenting with infections. Students will observe, document, and classify Thodam types using *Siddha* classical references. They will also evaluate the traditional *Ratchai/Kulisam Kattuthal* interventions, assessing their role in preventive and therapeutic care. Through group discussions and clinical analysis, students integrate classical *Siddha* knowledge with real-time clinical observation, enhancing their understanding of holistic pediatric *Siddha* practices.

Instructions to Students (First 30 Minutes) The Teacher will introduce *Thodam Noi,* its types (*e.g., Seethathodam, Nerthodam),* classical symptoms, and management protocols. The Teacher will also explain the role of *Ratchai/Kulisam Kattuthal* (protective/talismanic interventions) in preventing and managing infections. Guidelines will be provided for systematic clinical observation and documentation of neonatal symptoms.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will independently observe neonates with infections in OPD/IPD settings. They will document key clinical signs and compare these findings with *Siddha* classical descriptions of *Thodam Noi.*
Step 02 (Second 60 Minutes) Students will discuss the application of *Ratchai/Kulisam Kattuthal,* identifying its types and clinical relevance to different *Thodam* types. They will present their findings on Thodam Noi and analyze the preventive and therapeutic role of *Ratchai/Kulisam* through peer discussions, enhancing diagnostic accuracy and traditional understanding.
Assessment (Final 30 Minutes) The Teacher will assess students through checklists evaluating clinical observations and a practical viva on the types and roles of *Ratchai/Kulisam Kattuthal* in *Thodam Noi* management. Emphasis will be on accurate identification, application of Siddha diagnostic tools, and clinical reasoning in integrating preventive Siddha *therapies.*

Experiential-Learning 1.8 : Clinical Classification and Management of *Sooriya Noi* and *Santhira Noi*

Total Duration of the Activities 4 Hours
This experiential learning activity engages students in the classification and management of *Sooriya Noi* (3 types) and *Santhira Noi* (4 types) in pediatric patients with allergic skin conditions such as hives and inflammatory lesions. Through live or documented cases, students analyze *kuttram imbalances (Vali, Azhal, Iyyam),* evaluate *Siddha* therapeutic protocols, and integrate evidence-based care with *Siddha* principles. Discussions also include *Thodam*-associated allergic manifestations, encouraging critical evaluation of treatment outcomes and preventive strategies in pediatric skin disorders.
Instructions to Students (First 30 Minutes) The Teacher will provide an overview of *Sooriya Noi* and *Santhira Noi,* covering classifications, signs, symptoms, and triggers. Emphasis will be placed on identifying *thodam* predominance and understanding Siddha management protocols, including internal remedies and external therapies for allergic and inflammatory pediatric skin conditions.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will review live or documented clinical cases of *Sooriya Noi* and *Santhira Noi* in pediatric patients. They will identify type-specific signs, *kuttram* imbalances, and potential aggravating factors, documenting their observations systematically.
Step 02 (Second 60 Minutes) Students will analyze the cases and propose *Siddha* treatment plans, including internal medications (e.g., *Kudineer, Chooranam)* and external applications *(e.g., Poochu, Thailam).* They will discuss *Thodam*-associated allergic manifestations and formulate management strategies accordingly.
Step 03 (Third 60 Minutes) Students will present their case findings and management protocols in peer group discussions, evaluating treatment outcomes, addressing challenges, and proposing preventive strategies for recurring pediatric skin allergies.
Assessment (Final 30 Minutes) The Teacher will conduct a case-based assessment and practical viva focusing on classification accuracy, therapeutic decisions, and understanding of *mukkutram*-related pathogenesis. Checklists and log book entries will be used to document student performance and engagement.

Modular Assessment	
Assessment method	**Hour**
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 6C. **Section A -** 25 Marks - ABQ/ LAQ/SAQ & **Section B** - This 25-marks assessment evaluates the student's knowledge of neonatal *Siddha* disorders and their management through a structured presentation, concept-based quiz, and viva. It assesses recall, clinical reasoning, application of *Siddha* therapies, and clarity of explanation, integrating theory and practice in conditions like S*ikappu Noi, Pooppu, Pirali, Therai, Alakai, Ecchi, Melecchi, Ecchil Roakam, Kulikan and Azukural, Sooriya Noi, Santhira Noi and Thoodam/Thosham.* **Instructions to Students:** Students will be assigned a subtopic from Module 01 to present in 5 minutes. A written quiz covering all units will follow. The viva will test their understanding of *Siddha* classifications, pathogenesis, formulations, and case interpretation. Prepare to explain therapies, differential diagnosis, and preventive care. No reference materials allowed. **Instructions to Teachers:** Assess students on clarity, content relevance, and integration of *Siddha* concepts during presentations from M01.U1 and M01.U4. Quiz questions must reflect subunit details and challenge both recall and reasoning. Viva should include classification-based, clinical, and treatment-oriented questions. Use rubrics to ensure uniform marking, covering therapeutic logic, formulation accuracy, and neonatal case application. **Mark Distribution :** The assessment totals 25 marks, divided into three components. Structured Presentation on any one subtopic carries 10 marks, assessing clarity, accuracy, and integration of *Siddha concepts.* Written Quiz with multiple choice and short answer questions is allotted 8 marks, while Viva Voce for conceptual and clinical reasoning carries the final 7 marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	4

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/ Experientia	3E Domain/ Sub Domain	3F Level (Does/Shows how/ Knows h	3G Teaching Learning

			l Learning		ow/Know)	Methods

Module 2 : ?????????????? ????????? ????? ????? ??????? - Kuzhanthaigalukku Undaagum Swaasa Mandala Noigal (Pediatric Respiratory Tract Disorders):

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

Describe Siddha classifications of *Vilaachuziyan, Irumal, and Kaasam.*
Identify subtypes and causative factors of pediatric *Muppirai and Kanai.*
Differentiate symptoms of *Kaayam, Ilaippu Noi,* and chronic cough disorders.
Explain Siddha diagnostic methods for respiratory and inflammatory conditions.
Assess treatment strategies for *Vilaachuziyan, Irumal, and Kanai* in children.
Formulate preventive *Siddha* care plans for pediatric respiratory illnesses.

M 2 Unit 1 ??????????? - Vilaachuziyan

2.1.1 Classification and Clinical Features: Six subtypes of *Vilaachuzhiyan* based on *three humor* predominances, including causative factors, symptomatology and progression patterns in infants and children. 2.1.2 Siddha Diagnostic and Differentiation Tools: Diagnostic frameworks and symptom comparison with *Suram, Iyyanoi,* and other respiratory disorders. 2.1.3 Siddha Therapeutic Approaches: Internal remedies and external modalities like *Thokkanam, Nasiyam, and Pugai* tailored for pediatric care. 2.1.4 Preventive and Supportive Measures: *Patiyam,* seasonal regimen, immune-enhancing herbal preparations and lifestyle practices for prevention and recurrence control. 2.1.5 Case-Based Clinical Application: Illustrative pediatric case discussions emphasizing *Siddha* diagnosis, personalized treatment, patient monitoring and therapeutic outcome assessment.

References: 22,83,87

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Discuss Irumal types in children and Siddha-based treatment approaches.	1	Lecture	CC	Know	L&GD,L

CO2,CO3,CO6	Analyze and classify *Vilaachuzhiyan* subtypes using Siddha diagnostic principles.	4	Experiential-Learning 2.1	CAN	Does	SDL,D-BED,PAL,CBL
CO1,CO3,CO6	Apply preventive Siddha therapies to reduce *Vilaachuzhiyan* recurrence in children.	3	Experiential-Learning 2.2	PSY-GUD	Does	PL,CBL,PSM,SIM,D
CO1,CO3,CO7	Analyze and differentiate six types of *Vilaachuzhiyan* using Siddha principles.	3	Practical Training 2.1	CAN	Knows-how	TUT,SDL,CBL
CO1,CO3,CO7	Apply Siddha therapies and document management for *Vilaachuzhiyan* cases.	2	Practical Training 2.2	CAN	Knows-how	JC,LS
CO1,CO4,CO5	Discuss Muppirai characteristics, classification, and Siddha medications in pediatric treatment approaches.	1	Lecture	CC	Know	L&GD,DIS

M 2 Unit 2 ?????? ??????? ???????? - Irumal and Muppirai

2.2.1 Classification and Features of *Irumal:* Three primary types of *Irumal—Vaatha Irumal, Pitha Irumal, and Kabha Irumal* with symptoms and disease progression in pediatric cases. 2.2.2 Muppirai and Chronic Cough Types: Four classifications of *Muppirai* highlighting chronicity, clinical patterns, aggravating factors and differential features compared to *Irumal.* 2.2.3 Siddha Therapeutics for *Irumal*: Classical internal medicines, external applications, and *paatiyam* designed for pediatric *Irumal* management. 2.2.4 Management of *Muppirai* in Siddha: Comprehensive long-term care for *Muppirai* through immune-modulation, symptom control, prevention of recurrence using integrated internal and external therapies. 2.2.5 Clinical Application through Case Analysis: Illustrative pediatric cough case scenarios demonstrating Siddha diagnostic skills, individualized treatment planning, and outcome-based monitoring.

References: 86

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe eight types of Chuzhiyan in children with classification and medications.	1	Lecture	PSY-GUD	Know	L&GD,L
CO1,CO4,CO5	Describe six Vilaachuzhiyan types with classification and Siddha medications.	1	Lecture	CAN	Know	L,L&GD

CO1,CO3,CO6	Analyze types of *Muppirai* and apply Siddha therapies for chronic cough.	3	Experiential-Learning 2.3	PSY-GUD	Does	CD,D,PL,CBL,PBL
CO2,CO3,CO6	Analyze pediatric Irumal types and formulate Siddha-based management strategies.	3	Experiential-Learning 2.4	PSY-GUD	Does	CBL,D-BED,TBL,PAL
CO1,CO3,CO7	Identify and differentiate *Irumal* and *Muppirai* through clinical *Siddha* evaluation.	3	Practical Training 2.3	CAN	Knows-how	SDL,CBL,TUT
CO1,CO3,CO7	Document classical Siddha protocols for managing pediatric *Irumal* and *Muppirai.*	2	Practical Training 2.4	CC	Shows-how	TPW,LS

M 2 Unit 3 ?????, ????? ??????? ??????????? - Kaasam, Kaayam, and Ilaippu Noi

2.3.1 Types and Features of *Kaasam:* Six types of *Kaasam—Vaatha, Pitha, Kabha, Thondha, Sannipatha, and Kshaaya Kaasam*—based on *Uyir Thaathukkal* variations, symptomatology, and progression in pediatric respiratory disorders. 2.3.2 Classification and Significance of *Kaayam:* Nine types of *Kaayam* covering respiratory and systemic forms, highlighting etiological factors, malnutrition indicators, and pediatric clinical implications. 2.3.3 *Ilaippu Noi* Subtypes and Etiology: Five types of *Ilaippu Noi* focus on fatigue, emaciation, poor digestion, and underlying humoral disturbances contributing to weight loss in children. 2.3.4 Comparative Analysis of Chronic Pediatric Disorders: Symptom comparison and differential diagnosis framework for *Kaasam, Kaayam, and Ilaippu,* emphasizing chronic disease identification and individualized approach. 2.3.5 Siddha Management Strategies: Integrated *Siddha* treatment protocols involving internal medicines, rejuvenation therapies, dietary regulation *(Patiyam),* and supportive interventions for pediatric recovery and disease prevention.

References: 84,86,88

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe six types of Kaasam in children with classification and medications.	1	Lecture	CC	Know	L,L&GD
CO1,CO4,CO5	Describe five types of Ilaippu with classification and Siddha medications.	1	Lecture	CAN	Know	L&GD,L
CO2,CO5,CO8	Identify and classify *Kaasam, Kaayam,* and *Ilaippu Noi* using Siddha diagnostics.	3	Experiential-Learning 2.5	CC	Does	CBL,D-BED,PL
CO1,CO3,CO4	Formulate *Siddha* treatment plans for *Kaasam, Kaayam,* and *Ilaippu* cases.	3	Experiential-	PSY-	Does	CBL,TBL

			Learning 2.6	GUD		,DIS,PAL
CO1,CO4,CO5	Describe nine Kaayam types, explain classification, and outline Siddha medication approaches.	1	Lecture	CC	Know	L&GD,L, DIS
CO1,CO3,CO7	Document and classify *Kaasam, Kaayam,* and *Ilaippu Noi*	3	Practical Training 2.5	CK	Shows-how	LS
CO1,CO3,CO4	Compare symptoms and apply Siddha therapies for *Kaasam, Kaayam, Ilaippu.*	2	Practical Training 2.6	CAN	Shows-how	D-BED

M 2 Unit 4 ??? ???? - Kanai Noi

2.4.1 Classification of *Kanai Noi:* Classification of Kanai into 64 types based on Siddha literature with reference to clinical manifestations among pediatric cases. 2.4.2 Alternative Classification of *Kanai*: Classification systems of *Kanai* into 18, 24, and 15 types based on location, severity, and symptomatology, providing a holistic understanding of disease spectrum. 2.4.3 Etiological Classification and Prognosis: Causative factors of *Kanai* including congenital, humoural, environmental, and dietary triggers with distinction between *Theerum* (treatable) and *Theerathu* (non-treatable) types. 2.4.4 Therapeutics for *Kanai:* Internal formulations, external applications, and individualized Siddha treatment plans including assessment protocols for effective pediatric disease control. 2.4.5 Pediatric Preventive Strategies for *Kanai:* Seasonal regimens, *Patiyam* (diet), immune-modulation, and lifestyle guidance with case-based illustrations for long-term prevention and management.

References: 6,58,68,82,91,109

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO7	Classify and interpret *Kanai* types and causes	3	Practical Training 2.7	CC	Knows-how	C_L,PAL
CO1,CO3,CO4	Demonstrate Siddha-based evaluation and treatment for *Kanai* disorders.	2	Practical Training 2.8	PSY-GUD	Shows-how	CBL,D-BED
CO2,CO6,CO8	Identify and document types of *Kanam Noi* from Siddha literature.	3	Experiential-Learning 2.7	CK	Does	JC,LS,SDL,TPW
CO2,CO4,CO8	Apply Siddha treatments and preventive strategies for pediatric *Kanai* management.	4	Experiential-	CAP	Does	CBL,PAL

			Learning 2.8			,TBL,PSM,DL
CO1,CO4,CO5	Analyze 64 Kanai Noi types, clinical features, thodam variations, and pediatric implications.	1	Lecture	CAN	Knows-how	L,DIS,L&GD
CO1,CO4,CO5	Evaluate Kanai classifications and impact of site, severity, and symptoms.	1	Lecture	CC	Knows-how	L,DIS,L&GD
CO1,CO4,CO5	Discuss Kanai causes, treatment, prevention, and treatable versus non-treatable types.	1	Lecture	CC	Knows-how	L&GD,L,DIS

Practical Training Activity

Practical Training 2.1 : Clinical Classification, Diagnosis, and Management of *Vilaachuzhiyan*

Total duration of the Activities: 3 hours

This practical focuses on understanding *Vilaachuzhiyan*, a Siddha classification of pediatric respiratory disorders with six distinct types. Students will explore the causative factors, clinical features, and symptom progression of each subtype. Through real or simulated cases, they will learn to differentiate *Vilaachuzhiyan* from other respiratory conditions using Siddha nosology, *Nadi* examination, and clinical reasoning. The session will involve group tutorials for guided analysis, followed by self-directed exploration of symptom-disease correlations. Students will also engage in case-based learning to simulate diagnosis and propose holistic management plans.

Instructions to Students (First 30 Minutes)

Teacher will begin by reviewing the six types of *Vilaachuzhiyan* through classical Siddha texts and recent interpretations;divide the students into 2 groups and discuss the defining characteristics of each type and its underlying *kuttram* imbalances; Use this knowledge to approach the given pediatric respiratory case scenario;prepare to differentiate between similar conditions using Siddha diagnostics.

Students' Activities (Next 60 Minutes + 60 Minutes)

Step 01 (First 60 Minutes): Student will independently research one assigned type of *Vilaachuzhiyan* using prescribed Siddha references; Document its clinical features, progression, and corresponding treatment principles;Prepare a checklist to differentiate it from similar respiratory conditions like *Iraippu Noi* or *Kaatru Kaasam*.

Step 02 (Second 60 Minutes): Student will apply their findings to analyze a pediatric respiratory case;Work as a group to diagnose the type of *Vilaachuzhiyan*, justify it through symptom analysis, and propose a Siddha-based treatment plan;Present findings in a tutorial setting for peer and mentor feedback.

Assessment Methods (Final 30 Minutes)

Students will be assessed through case-based evaluation of their diagnosis and treatment rationale. A checklist will be used to ensure accurate identification of symptoms and subtype differentiation. Faculty will conduct a viva to assess conceptual clarity and decision-making. Clinical documentation and group engagement during the tutorial will also contribute to assessment.

Practical Training 2.2 : Documentation and Siddha-Based Management of *Vilaachuzhiyan*

Total duration of the Activities: 2 hours

This practical involves comprehensive documentation and application of Siddha treatment strategies for *Vilaachuzhiyan*. Students, after prior home-based learning, will apply their understanding in class by reviewing treatment protocols including herbal formulations, external applications, and preventive regimens. A journal club session will be held to critically analyze Siddha and modern literature on pediatric respiratory care. Library-based activity will help them explore evidence and traditional references for long-term care and relapse prevention. Students will then complete a case-based documentation task, outlining diagnosis, treatment, monitoring, and preventive care.

Instructions to Students *(First 15 Minutes)*

Teacher will begin by reviewing your pre-class reading on *Vilaachuzhiyan's* Siddha treatment options.Student will participate in journal discussion focusing on treatment efficacy; Utilize the library session to gather reference material for long-term care plans;prepare to document an integrated case-based management strategy, highlighting treatment and preventive practices.

Students' Activities (Next 60 Minutes + 30 Minutes)

Step 01 (First 60 Minutes): Student will analyze a clinical case of *Vilaachuzhiyan* and document diagnostic features, Siddha-based treatment (internal and external), *paatiyam,* and lifestyle advice;Use information from journal and library sources to justify the approach.

Step 02 (Next 30 Minutes):Student will draft a preventive care plan focused on immunomodulation, seasonal adjustments, and long-term lifestyle corrections;Prepare a brief summary for peer discussion.

Assessment Methods *(Final 15 Minutes)*

Assessment will be based on the clarity and depth of students' documentation, relevance of therapeutic strategies, and preventive planning. A structured viva will test their application of knowledge. A checklist will be used to evaluate completeness and accuracy of the documented management approach for *Vilaachuzhiyan.*

Practical Training 2.3 : Clinical Differentiation and *Siddha* Management of Pediatric *Irumal* and *Muppirai*

Total duration of the Activities: 3 hours

This clinical practical engages students in the diagnosis and *Siddha* management of pediatric patients presenting with cough. Students will clinically assess real or simulated pediatric cases of *Irumal* (three types) and *Muppirai* (four types). They will observe, document, and differentiate based on cough nature, humor involvement (Vali, Azhal, Iyyam), associated symptoms, and chronicity. The practical integrates bedside examination, pulse diagnosis *(Naadi),* and respiratory assessment to confirm diagnosis. Based on *Siddha* principles, students will develop individualized treatment protocols using internal medications, external therapies, and diet regulations.

Instructions to Students *(30 minutes)*

Teacher will begin with a review of *Siddha* textual references on *Irumal* and *Muppirai*; demonstrate videos or case simulations or direct patient evaluation; humor dominance, chronicity, and symptom clusters to guide accurate classification.

Students' Activities (60 minutes + 60 minutes)

Step 01 (First 60 Minutes): Student will examine the pediatric patient (real/simulated) presenting with cough; Perform *Naadi Paritchai*, respiratory auscultation, observe

throat and nasal condition, and elicit case history; Record findings and differentiate between acute *Irumal* types and chronic *Muppirai* types using *Siddha* criteria.
Step 02 (Next 60 Minutes): Student will formulate a diagnosis and prepare a management plan based on *Siddha* interventions; Propose internal herbal formulations, *external therapies* (e.g., *Thylam application, steam inhalation*), and suitable dietary advice;Justify diagnosis and treatment in clinical terms; Prepare a brief clinical case summary.
Assessment Methods *(30 minutes)*
Faculty will observe students' ability to clinically differentiate *Irumal* and *Muppirai.* Assessment will include case-based questioning, observation of procedural skills (e.g., *Naadi* reading, respiratory examination), and a short viva to test understanding of diagnostic reasoning, *Siddha* classification, and therapeutic planning.

Practical Training 2.4 : Documentation and Management of Pediatric *Irumal* and *Muppirai*

Total Duration of the Activities: 2 Hours
This practical focuses on the structured documentation and Siddha-based application of treatment protocols for *Irumal* (pediatric cough) and *Muppirai* (recurrent/chronic cough) in children. Under teacher supervision, students will review Siddha classical texts, document therapeutic regimens, and apply this knowledge to simulated pediatric cases. The activity integrates flipped learning, peer discussion, and library referencing to develop accurate, clinically relevant treatment strategies for both acute and chronic presentations.
Instructions to Students (First 15 Minutes): Teacher will provide Siddha classical reference materials and pre-class reading content. During the journal club session, students will discuss traditional treatment plans and their applications. In the library session, students will extract and document specific internal and external therapies for Irumal and Muppirai, noting *thodam*-balancing sequences and rationale.
Students' Activities
Step 01 (First 60 Minutes): Under teacher guidance, students will be divided into two groups. Each group will extract and document Siddha treatment plans for types of *Irumal* and *Muppirai* from classical texts. Plans must include herbal formulations *(e.g., Kudineer, Ilagam, Thylam),* external therapies *(e.g., Ottradam, Kizhi),* and dietary guidance *(Pathiyam)* tailored for acute and chronic stages.
Step 02 (Next 30 Minutes): Students will apply the documented therapies to a simulated pediatric case scenario. They will prepare a treatment summary differentiating interventions for acute Irumal and chronic *Muppirai.* Students will compare treatment strategies across groups and refine their plans through peer discussion.
Assessment (Final 15 Minutes): Teacher will assess the completeness and accuracy of each group's treatment documentation, the relevance of applied interventions in case-based tasks, and student engagement in the journal club. Students will submit their finalized treatment charts in logbooks, and peer-reviewed summaries will be evaluated for clarity and clinical alignment.

Practical Training 2.5 : Structured Documentation and Siddha Clinical Insights on *Kaasam, Kaayam,* and *Ilaippu Noi*

Total Duration of the Activities: 3 Hours
This practical focuses on documentation and clinical understanding of three major Siddha pediatric conditions: *Kaasam* (6 types of cough), *Kaayam* (9 types involving respiratory and wasting symptoms), and *Ilaippu Noi* (5 types related to fatigue and weight loss). Through flipped learning, journal club discussions, and *Siddha* library work, students will extract classical insights, document classifications, analyze *kuttram* correlations, and develop usable clinical reference tools. Under teacher supervision,

students will work in teams to develop comparison charts and case-identification templates applicable in pediatric Siddha practice.
Instructions to Students (First 30 Minutes): Teacher will share pre-class materials, including videos and reference texts, on *Kaasam, Kaayam,* and *Ilaippu Noi.* During the journal club session, students will discuss key Siddha insights, share observations, and clarify interpretations of symptoms and thodam involvement. In the subsequent library session, students will extract references from primary Siddha texts to build detailed documentation and charts.
Students' Activities
Step 01 (First 60 Minutes): Under teacher guidance, students will be divided into two groups. Each group will document the six types of *Kaasam (Vaatham, Pitham, Kabham, Thondham, Sannipatha, Kshaaya),* nine types of *Kaayam,* and five types of *Ilaippu Noi.* Each entry must include symptoms, etiology, disease stages, Siddha interpretations, and clinical significance in pediatrics.
Step 02 (Next 60 Minutes): Students will collaboratively create comparison charts linking each condition to *kuttram* variations. They will prepare structured case-based documentation templates usable during clinical postings for quick identification and diagnostic reasoning of *Kaasam, Kaayam,* and *Ilaippu* types.
Assessment (Final 30 Minutes): Teacher will evaluate students based on the completeness and clinical clarity of their documentation, chart presentation, and active participation in both journal club and library work. Case-based questions will assess students' depth of understanding in disease classification, *kuttram* interpretation, and clinical application in pediatric Siddha practice.

Practical Training 2.6 : Clinical Presentation and Siddha Therapeutics for *Kaasam, Kaayam, and Ilaippu*

Total Duration of the Activities: 2 Hours
This clinical session introduces students to live or simulated pediatric cases of *Kaasam, Kaayam, and Ilaippu*. Under teacher supervision, students will observe overlapping and distinguishing features of these respiratory and fatigue-related conditions. Siddha-based diagnostic and therapeutic protocols will be demonstrated, including internal medications, rejuvenative preparations, external applications, and dietary guidelines *(Pathiyam).* Students will integrate theoretical knowledge with practical clinical observation and treatment planning.
Instructions to Students (First 15 Minutes): Teacher will explain the clinical signs and Siddha classification of *Kaasam, Kaayam, and Ilaippu.* Teacher will demonstrate Siddha therapeutic protocols including diagnosis, prescription patterns, and external treatments. Students must take notes on overlapping and distinct features, preparing for bedside observation and treatment discussions.
Students' Activities
Step 01 (First 45 Minutes): Under teacher supervision, students will observe pediatric cases and document clinical features. They will compare these findings with Siddha nosology and prepare a differential diagnosis chart, highlighting *kuttram* involvement and symptom variations between *Kaasam, Kaayam, and Ilaippu.*
Step 02 (Next 45 Minutes): Students will discuss and draft Siddha treatment protocols for each condition based on their observations. They will suggest appropriate internal medicines, *pathiyam,* and external therapies such as oil application or fumigation. Justification must be given using classical Siddha references and patient symptoms.
Assessment (Final 15 Minutes): Teacher will assess students through real-time case-based discussions and direct observation of documentation and clinical reasoning. A practical viva will evaluate their ability to compare symptoms accurately, propose Siddha treatments, and justify interventions based on classical sources.

Practical Training 2.7 : Documentation and Diagnostic Interpretation of *Kanai Noi* Classifications

Total Duration of the Activities: 3 Hours

Students will collaboratively document the *64 types of Kanai* described in Siddha literature, along with four alternate classification systems (18, 24, 18, and 15 types). Under teacher supervision, learners will map each classification to humor involvement, symptom profile, anatomical site, and clinical relevance. Special emphasis will be placed on differentiating treatable *(Theerum)* vs. non-treatable *(Theerathu)* types, guiding prognosis and treatment strategies. Co-learning and peer discussion will be used to build visual representations and present interpretations backed by classical references.

Instructions to Students (First 30 Minutes): Teacher will explain the sources and classical texts outlining various *Kanai* classifications. Students will be guided to understand symptom severity, *Thodam* predominance, and distinguish *Theerum* and *Theerathu* types. Emphasis will be placed on clinical utility of each classification and its therapeutic implications.

Students' Activities

Step 01 (First 60 Minutes): Under teacher supervision, students will document all 64 types of *Kanai* and organize alternate classifications (18, 24, 18, and 15 types). They will create comparative charts to differentiate types by *Thodam* involvement, symptom features, site of manifestation, and disease behavior.

Step 02 (Next 60 Minutes): Students will analyze provided case examples of pediatric *Kanai* conditions and classify them into *Theerum* and *Theerathu* types. They will present therapeutic suggestions for treatable types and outline prognosis and treatment challenges in non-treatable types, supported by classical Siddha evidence.

Assessment (Final 30 Minutes): Teacher will assess accuracy of documentation, completeness of comparative charts, and clarity of student presentations. Case-based questions and peer feedback will evaluate their ability to apply classification knowledge to clinical scenarios and predict treatment outcomes. Evaluation will focus on prognosis justification using Siddha principles.

Practical Training 2.8 : Clinical Diagnosis and Siddha Management of Pediatric *Kanai* Disorders

Total Duration of the Activities: 2 Hours

This session immerses students in the clinical diagnosis and Siddha management of *Kanai* disorders in children. Under teacher supervision, students will observe pediatric cases (real or simulated), evaluate respiratory symptoms, and document inspection and auscultation findings. Based on the disease stage, they will propose internal and *external therapies*, and explore preventive strategies including *Kaala Maruthuvam* (seasonal regimens), *Pathiyam*, and immunity enhancement. Case discussions will emphasize chronic and recurrent presentations to develop long-term Siddha care models.

Instructions to Students (First 15 Minutes): Teacher will guide students to observe pediatric Kanai cases and recognize symptoms using *Siddha* diagnostic principles. Students will participate in bedside or simulated examination, noting signs such as cough pattern, chest movement, and breath sounds. They are expected to formulate a full *Siddha* management plan covering internal remedies, external therapies, and preventive strategies.

Students' Activities

Step 01 (First 45 Minutes): Under teacher supervision, students will perform clinical examinations focusing on respiratory symptoms of *Kanai.* They will draft *Siddha* treatment protocols including internal medicines (e.g., *Thalisathi Chooranam), external therapies* (e.g., oil application), and explain the rationale for selections based on disease stage.

Step 02 (Next 45 Minutes): Students will discuss and develop preventive care strategies for recurrent *Kanai,* emphasizing seasonal practices *(Kaala Maruthuvam), diet (Paatiyam),* and immunity support using *Siddha* herbs. They will use real or simulated cases to plan and present long-term Siddha management.
Assessment (Final 15 Minutes): Teacher will assess students through clinical role-play to evaluate treatment explanation skills and bedside observation to verify examination technique accuracy. A structured checklist and video case comparisons will be used to assess diagnostic clarity, management planning, and preventive care design.

Experiential learning Activity

Experiential-Learning 2.1 : Clinical Identification and Siddha Diagnosis of *Vilaachuzhiyan* Subtypes in Pediatric Respiratory Disorders

Total Duration of the Activities 4 Hours
This experiential learning activity involves clinical observation and hands-on diagnostic analysis of pediatric respiratory conditions, focusing on the six subtypes of *Vilaachuzhiyan.* Students will apply Siddha diagnostic techniques such as *Envaagai Thervu* and *Naadi,* classify the respiratory condition, and differentiate *Vilaachuzhiyan* from *Suram* and *Iyyam*-related respiratory diseases. Emphasis will be placed on understanding causative factors, disease progression, and *thodam* imbalances to ensure precise Siddha diagnosis and appropriate treatment planning.
Instructions to Students (First 30 Minutes) The Teacher will explain the six subtypes of Vilaachuzhiyan, covering symptom patterns, causative factors, and progression. The session will include a demonstration of clinical diagnostic techniques, focusing on *Naadi, Envaagai Thervu,* and symptom comparisons with *Suram* and *Iyyam* disorders to aid in differential diagnosis.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will engage in clinical observation and case assessments of pediatric patients with respiratory symptoms in OPD/IPD settings. They will apply *Envaagai Thervu* and *Naadi* techniques to gather relevant diagnostic data.
Step 02 (Second 60 Minutes) Students will classify *Vilaachuzhiyan* subtypes based on their findings. They will prepare a differential diagnosis, distinguishing *Vilaachuzhiyan* from other pediatric respiratory conditions like *Suram* and *Iyyam*-related disorders using Siddha diagnostic frameworks.
Step 03 (Third 60 Minutes) Students will present their findings and diagnostic reasoning in peer group discussions. They will propose treatment implications for each subtype of *Vilaachuzhiyan* and reflect on their diagnostic accuracy, identifying areas for improvement.
Assessment (Final 30 Minutes) The Teacher will evaluate students through an OSPE station, focusing on *Naadi* and *Envaagai Thervu* interpretation, practical case-taking skills, and diagnostic reasoning. Compilation entries will be reviewed for differential analysis accuracy, completeness, and application of Siddha diagnostic principles.

Experiential-Learning 2.2 : Case-Based Diagnosis and Preventive Care for *Vilaachuzhiyan*

Total Duration of the Activities 3 Hours
This experiential learning activity focuses on preventive care planning for *Vilaachuzhiyan* in pediatric respiratory management. Through clinical case-based analysis, students will identify risk factors for recurrence, develop long-term Siddha-based management strategies, and ensure treatment efficacy. Emphasis is placed on immuno-enhancing therapies, *pathiyam* (dietary regimens), seasonal care, and lifestyle modifications to promote holistic respiratory health in children. The session encourages practical application of Siddha preventive principles for sustained pediatric well-being.

Instructions to Students (First 20 Minutes) The Teacher will introduce preventive Siddha measures for respiratory conditions, including herbal therapies, seasonal care practices, and *pathiyam.* Guidelines on case analysis, monitoring treatment outcomes, and follow-up planning will be provided. Students will be instructed on how to develop personalized preventive strategies to minimize recurrence and ensure long-term care efficacy.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will be divided into two groups, each analyzing real-life pediatric *Vilaachuzhiyan* cases. They will identify preventive care needs, assess risk factors for recurrence, and propose customized Siddha-based preventive plans, integrating immuno-enhancing medicines, *pathiyam,* and lifestyle interventions.
Step 02 (Second 70 Minutes) Each group will prepare and present long-term care plans with follow-up strategies, discussing treatment efficacy, dietary guidelines, seasonal care, and Siddha therapies for enhancing immune function. Peer discussions will facilitate refinement of the proposed strategies.
Assessment (Final 20 Minutes) The Teacher will conduct a case-based evaluation, assessing the preventive care strategies and follow-up plans using a structured checklist. Compilation entries will document each student's analysis and proposed interventions for long-term pediatric respiratory care, ensuring alignment with Siddha principles.

Experiential-Learning 2.3 : Case-Based Diagnosis and Management of *Muppirai* (Chronic Cough) in Children

Total Duration of the Activities 3 Hours
This experiential learning activity focuses on analyzing pediatric Muppirai cases using Siddha nosological classification, differentiating them from Irumal, and developing preventive and therapeutic strategies. Students will apply *Naadi* and *Envagai Thervu* diagnostic tools, propose internal and external Siddha remedies, and recommend long-term care measures such as immune support and dietary guidelines *(Paatiyam).* The session emphasizes understanding aggravating factors, seasonal influences, and recurrence control strategies in chronic pediatric cough.
Instructions to Students (First 20 Minutes) The Teacher will introduce the four types of *Muppirai* and their clinical features, explaining aggravating factors and seasonal influences. Demonstrations will cover the application of Siddha diagnostic tools *(Naadi and Envagai Thervu)* and key internal *(Kudineer, Chooranam)* and external remedies *(Poochu, Thylam)* used in Muppirai management.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will be divided into two groups to analyze real-life or simulated pediatric *Muppirai* cases. They will identify the type of *Muppirai* based on symptom patterns and propose appropriate Siddha internal and external therapies.
Step 02 (Second 70 Minutes) Each group will present their treatment and prevention plans, highlighting immune-enhancing therapies, dietary guidelines *(Pathiyam),* and lifestyle modifications. They will discuss potential challenges and propose strategies for recurrence control in chronic pediatric cough management.
Assessment (Final 20 Minutes) The Teacher will conduct a practical examination and practical viva to assess student understanding of *Muppirai* classification, diagnosis, and management strategies. A checklist will be used to evaluate clinical reasoning and remedy selection for each student.

Experiential-Learning 2.4 : Evaluation of various forms of *vilaachuziyan* in infants with cough and breathing difficulty

Total Duration of the Activities 3 Hours
This experiential learning activity involves clinical observation and case-based analysis of pediatric *Irumal* cases. Students will classify *Irumal* types *(Vaatham, Pitham, or*

Kabham) using Siddha diagnostic tools and propose personalized treatment plans. Emphasis will be placed on documenting symptoms, applying Siddha therapies (internal and external), and integrating *Pathiyam* (dietary regimens) based on age and disease pattern. The session fosters practical application of Siddha diagnostics and therapeutic strategies in managing pediatric respiratory conditions.
Instructions to Students (First 20 Minutes) The Teacher will explain the classification of *Irumal*, covering clinical signs, causes, disease patterns, and Siddha treatment approaches. Demonstration of key Siddha formulations and their therapeutic applications will be provided, emphasizing symptom monitoring and treatment efficacy.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will be assigned to the OPD/IPD respiratory pediatric section and identify at least 10 children with *Irumal.* They will perform clinical examinations, classify the *Irumal* type using *Naadi* and *Envagai Thervu*, and document detailed case notes.
Step 02 (Second 70 Minutes) Students will prepare individual treatment plans for each case, proposing appropriate internal Siddha remedies, *external therapies,* and dietary regimens *(Pathiyam).* They will discuss their cases in small groups and present their findings and therapeutic strategies.
Assessment (Final 20 Minutes) The Teacher will review compiled case documentation and conduct a practical viva focusing on the accuracy of *Irumal* classification, the appropriateness of Siddha management plans, and the clarity of documentation. A structured checklist will be used for evaluation.

Experiential-Learning 2.5 : Siddha Diagnostic Identification of Pediatric *Kaasam, Kaayam*, and *Ilaippu Noi*

Total Duration of the Activity 3 Hours
This experiential learning activity emphasizes the diagnostic classification of pediatric cases presenting with chronic cough, emaciation, or fatigue into *Kaasam* (6 types), *Kaayam* (9 types), or *Ilaippu Noi* (5 types) using Siddha diagnostic principles. Students will focus solely on accurate identification and documentation without formulating treatment plans. *Naadi, Envagai Thervu*, and clinical history analysis will be applied to enhance students' diagnostic accuracy and understanding of Siddha nosology.
Instructions to Students (First 20 Minutes) The Teacher will explain the definitions, classifications, clinical features, and Siddha diagnostic criteria for *Kaasam, Kaayam,* and *Ilaippu Noi*. Demonstrations will cover key diagnostic signs and symptom correlations to support accurate classification.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will assess at least 5 pediatric cases in the OPD/IPD pediatric unit, documenting presenting signs and symptoms. They will classify each case under *Kaasam, Kaayam*, or *Ilaippu Noi* using Siddha diagnostics only (*Naadi, Envagai Thervu,* clinical history), focusing on symptom pattern recognition.
Step 02 (Second 70 Minutes) Students will present their documented cases in peer group discussions, explaining their diagnostic reasoning behind the classification. Emphasis will be placed on distinguishing features and Siddha diagnostic clarity without discussing treatment plans or dietary interventions.
Assessment (Final 20 Minutes) The Teacher will conduct a practical viva and verify compilation records using a structured checklist. Evaluation will focus on diagnostic accuracy, clarity of classification, and correct application of Siddha diagnostic principles, ensuring no inclusion of treatment or dietary plans.

Experiential-Learning 2.6 : *Siddha* Treatment Strategies for Pediatric *Kaasam, Kaayam*, and *Ilaippu Noi*

Total Duration of the Activities 3 Hours

This experiential learning activity enables students to engage in clinical observation and hands-on case discussions focusing on *Siddha* treatment protocols for *Kaasam, Kaayam,* and *Ilaippu Noi* in pediatric care. Students will learn to select appropriate internal medicines, external therapies, *paatiyam* (diet plans), and rejuvenative interventions *(Kayakarpam),* with a focus on preventive care to avoid recurrence in chronic pediatric conditions. The session emphasizes individualized treatment strategies and the integration of dietary and lifestyle modifications.

Instructions to Students (First 20 Minutes) The Teacher will explain drug selection, dosage guidelines, and supportive therapies for *Kaasam, Kaayam,* and *Ilaippu Noi,* including dietary plans *(paatiyam)* and rejuvenative interventions *(Kayakarpam).* Guidance will focus on formulating treatment plans that integrate internal and *external Siddha therapies* for long-term management and recurrence prevention.

Students' Activities (70 min + 70 min = 140 minutes)

Step 01 (First 70 Minutes) Students will analyze five provided pediatric cases and formulate detailed *Siddha* treatment protocols, integrating internal medicines, *external therapies,* and *paatiyam* (dietary regimens), tailored to the disease pattern and child's age.

Step 02 (Second 70 Minutes) Students will discuss treatment plans in peer groups, justifying their choice of medicines, therapies, and preventive approaches. They will incorporate *Kayakarpam* (rejuvenative strategies) and propose long-term care plans to manage chronic pediatric *Siddha* conditions effectively.

Assessment (Final 20 Minutes) The Teacher will conduct a case-based viva and review log book entries. Evaluation will focus on the accuracy of treatment selection, appropriate integration of therapies, and clarity in preventive care planning for chronic pediatric conditions using *Siddha* principles.

Experiential-Learning 2.7 : Literary Exploration of *Kanam Noi* Classifications in Siddha Texts

Total Duration of the Activities 3 Hours

This experiential learning activity engages students in the literary exploration of *Kanai Noi* classifications from *Siddha* classical texts. Students will examine the 64 types of *Kanai Noi* and alternative classification systems (e.g., 18, 24, 18, 15 types), analyzing clinical features, *mukkuttram* involvement, and disease location. The session emphasizes critical cross-referencing of Siddha classics like *Yugi Vaithiya Chinthamani, Agathiyar,* and *Theraiyar.* Students will compile findings into an organized academic assignment to deepen their understanding of Siddha nosology.

Instructions to Students (First 20 Minutes) The Teacher will explain the key differences in Kanai Noi classifications, including clinical descriptions and thodam patterns. Students will be guided on accessing Siddha primary texts, interpreting classification systems, and compiling references for 64 types and alternate classifications.

Students' Activities (70 min + 70 min = 140 minutes)

Activity 01 (First 70 Minutes) Students will access primary Siddha literary sources (e.g., *Yugi Vaithiya Chinthamani, Agathiyar, Theraiyar*) and document the 64 types of *Kanai Noi* with brief clinical descriptions for each type.

Activity 02 (Second 70 Minutes) Students will explore alternative classification schemes (e.g., 18, 24, 18, 15 types), noting symptom patterns, disease progression, and location-based variations. They will compile findings into a structured assignment/report for academic submission.

Assessment (Final 20 Minutes) Students will submit their compiled documentation for review. The Teacher will conduct a reflective viva or peer discussion to assess understanding. Evaluation will be based on accuracy, completeness, clarity of documentation, and the depth of literary analysis using a structured checklist.

Experiential-Learning 2.8 : Comprehensive Siddha Management of Pediatric *Kanai* Noi: From Cause Analysis to Long-Term Care

Total Duration of the Activities 4 Hours

This hands-on workshop integrates theoretical instruction, medicine preparation, and case-based discussions to provide students with a comprehensive understanding of pediatric *Kanai Noi* management. The session begins with cause analysis, distinguishing treatable *(Theerum)* and non-treatable *(Theerathu)* forms. Students will observe or participate in Siddha medicine preparation *(e.g., Chooranam, Kashaayam, Thylam),* followed by case analysis, treatment planning, and preventive care strategies (including seasonal regimens and *pathiyam)* for *Kanai* Noi recurrence prevention in children.

Instructions to Students (First 30 Minutes) The Teacher will explain the causative factors of Kanai Noi, classifications into *Theerum* (treatable) and *Theerathu* (non-treatable) forms, and their prognostic significance. Students will be guided to participate in Siddha medicine preparation and apply their knowledge to evaluate pediatric case scenarios, focusing on preventive care planning.

Students' Activities (60 min + 60 min + 60 min = 180 minutes)

Activity 01 (First 60 Minutes) Students will identify and categorize etiological factors of *Kanai Noi,* distinguishing between *Theerum* and *Theerathu* forms. They will document this classification and its therapeutic implications, focusing on clinical relevance and prognosis.

Activity 02 (Second 60 Minutes) Students will observe or participate in the preparation of Siddha internal and *external medicines* (e.g., *Chooranam, Kudineer,Thylam).* They will document the preparation steps, ingredient selection, and quality control measures involved in ensuring therapeutic efficacy and safety.

Activity 03 (Third 60 Minutes) Students will engage in case-based discussions to develop treatment and preventive care plans for *Kanai Noi.* Plans will emphasize dietary management *(Pathiyam),* seasonal regimens, and long-term monitoring strategies for recurrence prevention, aligning with Siddha principles.

Assessment (Final 30 Minutes) Students will undergo a practical viva and submit a checklist-based report covering cause analysis, treatment formulation, and preventive strategies. The Teacher will assess accuracy, depth of understanding, and practical application of Siddha *care* for *Kanai Noi* in pediatric practice.

Modular Assessment

Assessment method	**Hour**
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 6C. **Section A** – This 25-mark scenario-based assessment evaluates clinical skills in Siddha diagnosis and case handling of pediatric respiratory illnesses such as *Vilaachuzhiyan, Irumal, Muppirai* etc.. Students will analyze case details, identify humor-based subtypes, perform structured case-taking, propose *Siddha*-based therapies, and justify preventive and management plans aligned with classical texts and clinical relevance. Instructions to Students: Students will be given a clinical scenario involving symptoms of *Vilaachuziya, Irumal, Muppirai.* Perform structured case-taking, interpret diagnostic elements using *Siddha* tools, and propose a management plan. Include dietary, therapeutic, and preventive advice. Students will justify their clinical decisions in a short viva. No reference material allowed. Instructions to Teachers: Prepare structured pediatric scenarios reflecting respiratory symptoms that suggest *Siddha* clinical entities such as *Vilaachuziyan* or *Irumal/Muppirai* M02.U1 and M02.U2. Evaluate students on their ability to extract relevant history, interpret *Siddha* diagnostics *(Naadi, Neikkuri),* and plan personalized therapy. Use a standardized rubric focusing on logical coherence, preventive strategies, and clarity during viva interaction.	4

Mark Distribution : The total marks for this assessment are 25. History Taking and Symptom Analysis carries 7 marks, assessing the student's ability to extract relevant clinical details. *Siddha* Diagnostic Interpretation is allotted 6 marks, Therapeutic Plan Formulation receives 6 marks, while Preventive Strategies and Prognosis and Viva Justification carry 3 marks each.

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Section B - This 25-mark OSPE and problem-solving assessment tests the student's ability to analyze chronic pediatric disorders such as *Kaasam, Kaayam, Ilaippu Noi, and Kanai Noi* through practical skill application. Students will rotate through structured stations assessing classification, diagnosis, formulation selection, and case-based reasoning using Siddha principles and clinical logic.

Instructions to Students: Students will rotate through 3–4 OSPE stations where they will identify symptoms, classify subtypes, select appropriate *Siddha* formulations, or interpret diagnostic data. A final discussion/problem-solving station will follow to assess application of *Siddha* management strategies in a given case. Read all instructions carefully. No reference materials allowed.

Instructions to Teachers: Design OSPE stations to evaluate knowledge of *Kaasam* types, *Kanai* classifications, and related chronic pediatric conditions from M02.U3 and M02.U4. Include tasks such as diagnosis classification, formulation justification, and symptom mapping. In the final station, assess decision-making in a clinical scenario. Use structured rubrics to ensure consistency in evaluation.

Mark Distribution: The total marks for this assessment are 25. OSPE Station 1 – Classification/Identification Task carries 7 marks, assessing student ability to recognize and categorize pediatric disorders. Station 2 – *Siddha* Formulation Selection carries 6 marks, Station 3 – Diagnostic Interpretation or *Paatiyam* Advice holds 5 marks, and Station 4 – Case-Based Problem Solving Discussion carries 7 marks.

(Or)

Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

Semester No : 4

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 3 : ??????????? ??????? ??????? ???????????????? ??????? - Kuzhanthaigalin Iraippai Mattrum Kudalai paathikkum Noigal (Pediatric						

Gastrointestinal Disorders)

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

Describe the Siddha classification of *Kudaletram, Theerai, and Vaanthi Noikal.*
Identify causative factors and symptoms of pediatric abdominal disorders.
Compare symptomatology in diarrhea, vomiting, and indigestion conditions.
Apply Siddha diagnostic techniques for *Vayitru Valikal and Maantha Noikal.*
Analyze Siddha treatment strategies for colic, anorectal, and diarrheal cases.
Formulate case-based management plans using *Siddha* interventions in GI disorders.

M 3 Unit 1 ??????????, ????????? ???????, ????, ??????? ??????? ????? - Kudaletram, Kudalirakka Noigal, Theerai, Vikkal and Thaagam

3.1.1 Classification of *Kudaletram and Kudalirakka Noigal* : Six types of *Kudaletram* and seven types of *Theerai* with clinical features and disease evolution. 3.1.2 Clinical Features of Herniation and Colic: Symptomatology, underlying causes, and early indicators of pediatric herniation and colic with *Siddha* diagnostic perspectives. 3.1.3 Definition and Varieties of *Vikkal and Thaagam:* Categorization and causes of *Vikkal* (hiccup disorders) and *Thaagam* (thirst disorders) with diagnostic markers relevant to *Siddha* pediatrics. 3.1.4 Preventive *Siddha* Measures for *Kudaletram, Theerai, Vikkal,* and *Thaakam*: *Patiyam* (diet), lifestyle regulations, seasonal guidelines, and herbal prophylactics for preventiion. 3.1.5 Evaluation of Siddha Treatment Protocols: Analysis of classical formulations for *Kudaletram, Theerai, Vikkal,* and *Thaakam* with insights into treatment efficacy and clinical integration.

References: 84,87,88,91,118

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Describe types, classification, and symptoms of *Kudaletram* and pediatric colic.	1	Lecture	CC	Knows-how	DIS,LS,L &PPT ,CBL
CO1,CO3,CO5	Outline types and Siddha treatments for *Vikkal, Thaagam, and Kudaletram.*	1	Lecture	CC	Knows-	C_L,PL,L

					how	,TBL
CO2,CO4,CO6	Analyze symptoms to classify six types of *Kudaletram*	3	Experiential-Learning 3.1	AFT-VAL	Does	Mnt,TBL, CBL,LS, D-M
CO2,CO3,CO4 ,CO6	Analyze etiological factors and symptoms for diagnosing *Vikkal and Thaagam.*	3	Experiential-Learning 3.2	CAP	Does	SIM,LS,C BL
CO1,CO3,CO6	Perform clinical diagnosis and propose treatment for *Kudaletram.*	3	Practical Training 3.1	PSY-GUD	Shows-how	CBL,SIM ,RP
CO1,CO4,CO6	Diagnose and plan Siddha care for *Theerai, Vikkal, and Thaagam.*	2	Practical Training 3.2	PSY-SET	Shows-how	SIM,CD

M 3 Unit 2 ????????????? - ??????, ???????, ????????? ??????? ??????? - Vayitru Valikal - Vaaivu, Kunmam, Ulaimaanthai and Kaduppu

3.2.1 Classification of *Vayitru Valigal: Vaaivu* (3 types), *Kunmam* (3 types), *Ulamaanthai* (6 types), and *Kaduppu* (3 types) with clinical features, etiopathogenesis, and Siddha classification in pediatric abdominal pain. 3.2.2 Etiology and Differential Diagnosis of Abdominal Disorders: Symptomatology, causes and differential diagnosis of *Vayitru Valikal* using Siddha diagnostic principles to identify complications in children. 3.2.3 Classification and Features of *Moola Noigal, Pavuthiram, and Moola Rogam*: Six types each of *Moola Noigal, Pavuthiram, and Moola Rogam* with signs, risk factors, and clinical relevance in pediatric ano-rectal conditions. 3.2.4 Siddha Diagnostic Tools and Prognostic Evaluation: Application of *Envagai Thervu* and Siddha tools for diagnosis and prognosis in *Vayitru Valikal and Moola Noikal.* 3.2.5 Siddha Treatment for Abdominal and Ano-Rectal Disorders: Internal medicines, external applications, dietary regulation, and preventive Siddha strategies for pediatric abdominal and ano-rectal management.

References: 68,83,84,87,109

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Identify classifications and Siddha concepts of *Vaaivu, Kunmam, Ulaimaanthai* etc.,	1	Lecture	CK	Know	DIS,TUT, LS,L&G D
CO1,CO3,CO5	Describe classifications and features of *Moola Noigal, Pavuthiram, Moola Rogam.*	1	Lecture	CK	Know	TBL,DIS,

						LS,CBL, L
CO1,CO3,CO5	Outline treatment protocols for gastrointestinal and anorectal disorders in Siddha.	1	Lecture	CK	Know	CBL,SDL ,L&GD
CO2,CO4,CO8	Perform clinical exams to classify and assess *Moola, Pavuthiram, and Moola Rogam.*	3	Experiential-Learning 3.3	PSY-GUD	Does	RLE,TBL ,CBL,D-BED
CO2,CO4,CO6	Perform examination and classify *Vaaivu, Kunmam, Ulaimaanthai,* and *Kaduppu*.	3	Experiential-Learning 3.4	PSY-GUD	Does	D-BED,R LE,SIM,C BL
CO1,CO3,CO6	Identify and classify pediatric abdominal pain disorders using Siddha diagnostics.	3	Practical Training 3.3	PSY-GUD	Shows-how	CBL,D-BED
CO1,CO3,CO5	Perform clinical evaluation and apply Siddha diagnostic methods in pediatric ano-rectal disorders.	2	Practical Training 3.4	PSY-GUD	Shows-how	SIM,CBL ,D-BED

M 3 Unit 3 ??????, ???????? ??????? ???? ??????? ??????? - Vaanthi, Kazhicchal,mattrum adhanai saarntha noigal

3.3.1 Classification of *Vaanthi and Sarthal*: Three types of *Vaanthi* and five types of *Sarthal* with causative factors, clinical features, and Siddha management approaches in pediatric vomiting disorders. 3.3.2 Classification and Features of *Kazhicchal:* Thirteen, eight, and five types of *Kazhicchal* with symptom analysis, etiological factors, and Siddha diagnostic perspectives for pediatric diarrheal disorders. 3.3.3 Specific Diarrheal Conditions in Children: *Athisaaram* (6 types), *Kiraani* (3–4 types), *Seethabethi* (4 types), and *Neerpaadu* (5 types) with unique pediatric presentations and disease manifestations. 3.3.4 Symptom Differentiation in Vomiting and Diarrheal Disorders: Comparative evaluation of overlapping symptoms between *Vaanthi and Kazhicchal* to aid in accurate diagnosis and therapeutic decision-making. 3.3.5 *Siddha* Management and Case-Based Learning: Treatment protocols using internal and external *Siddha* medicines, dietary guidelines, and real case discussions for effective pediatric care in *Vaanthi and Kazhicchal.*

References: 60,83,86,88,117,119

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

CO1,CO2,CO3	Describe types of *Vaanthi and Kazhicchal* with key clinical features.	1	Lecture	CK	Know	CBL,C_L,L&GD,LS
CO1,CO2,CO3	Describe *Athisaaram, Kiraani, Seethabethi, Neerpaadu* conditions.	1	Lecture	CAN	Know	CBL,L_VC,L&PPT,TBL
CO2,CO4,CO6	Analyze clinical and laboratory data to differentiate diarrheal disorders	4	Experiential-Learning 3.5	CAN	Does	PBL,DIS,LRI,CBL
CO2,CO4,CO6	Analyze clinical features and lab data to differentiate pediatric vomiting disorders.	3	Experiential-Learning 3.6	CAN	Does	RLE,CD,DIS,LRI,PL
CO2,CO3,CO5	Demonstrate guided clinical skills for diagnosis and management of *Kazhicchal.*	3	Practical Training 3.5	PSY-GUD	Shows-how	D,CBL,SIM,PAL
CO2,CO3,CO6	Perform guided assessment and management for pediatric vomiting disorders.	2	Practical Training 3.6	PSY-GUD	Shows-how	D-BED,CBL,SIM

M 3 Unit 4 ????? ??????? - Maantha Noigal

3.4.1 Classification Systems of *Maantha Noigal:* Eighteen, nineteen, thirteen, eight, thirty-one, and seventeen types of *Maantha Noikal* based on *Siddha literature,* highlighting relevance for pediatric indigestion diagnosis. 3.4.2 Etiology and Prognosis in *Maantha Noigal:* Causative factors of indigestion in children and classification into *Theerum* (curable) and *Theerathu* (non-curable) forms for Siddha-based prognosis evaluation. 3.4.3 Symptomatology and Differential Diagnosis; Comparison of clinical manifestations in *Maantha Noigal* with similar gastrointestinal conditions for precise identification and appropriate Siddha treatment. 3.4.4 Siddha Therapeutic Approaches for Indigestion: Review of internal formulations, external therapies, dietary management, and supportive Siddha *car*e for various subtypes of *Maantha Noigal.* 3.4.5 Practical Case-Based Insights in *Maantha Noigal:* Real-time pediatric cases to integrate theory with practice in diagnosis, formulation planning, monitoring, and outcome analysis in indigestion management.

References: 6,22,58,66,85,87,91,109,118,130,131

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

CO1,CO2,CO3	Describe *Maantha* digestive disorders based on Siddha textual subtypes.	1	Lecture	CC	Knows-how	C_L,L&GD,CBL,SDL
CO1,CO2,CO3	Differentiate treatable *Maantha Noigal* and compare pediatric indigestion symptoms.	1	Lecture	CAN	Know	LS,PL,C_L,L&GD
CO1,CO3,CO5	Describe Siddha treatments through practical case-based learning in *Maantha Noigal*.	1	Lecture	CC	Know	LS,D-M,CBL,DIS
CO1,CO2,CO5	Compile and analyze Siddha classifications of *Maantha Noigal* from classical texts.	3	Experiential-Learning 3.7	CK	Does	TPW,PER,C_L,JC,LS
CO1,CO3,CO5	Analyze pediatric digestive disorder symptoms to identify type-specific *Maantha Noi.*	4	Experiential-Learning 3.8	CAN	Does	RLE,CBL,D-BED,DIS,SIM
CO1,CO3,CO6	Demonstrate diagnostic and treatment skills in 10 key pediatric *Maantha Noigal.*	3	Practical Training 3.7	PSY-MEC	Shows-how	D,CBL
CO3,CO5,CO6	Create and present clinical concepts of *Maantha Noigal* using innovative tools.	2	Practical Training 3.8	PSY-ORG	Shows-how	D,PER,RP

Practical Training Activity

Practical Training 3.1 : Clinical Diagnosis and *Siddha* Management of *Kudaletram*, Herniation, and Colic in Children

Total Duration of the 3 Hours

Students will clinically assess pediatric or simulated patients presenting with gastrointestinal complaints, including the six types of *Kudaletram*, herniation, and colic. Under teacher supervision, they will perform symptom analysis, guided abdominal examination, and *Kutram*-based classification using *Siddha* nosology. Classical *Siddha* texts will be used to derive suitable treatment formulations. Through case-based role-plays and communication practice, students will learn to integrate diagnosis with personalized *Siddha* pediatric care strategies.

Instructions to Students (First 30 Minutes): Teacher will explain the six types of *Kudaletram* and clinical markers of herniation and colic. Students will observe simulated patients, take structured histories, and identify symptoms using *Siddha* diagnostic principles. They are expected to classify the disorder, suggest appropriate internal and

external therapies, and prepare for role-play and viva on *Siddha* treatment protocols and pediatric application.
Students' Activities
Step 01 (First 60 Minutes): Under supervision, students will interact with simulated pediatric cases to practice case history taking and perform abdominal examination. They will identify signs such as distension, pain location, or hernial protrusion, and apply *Siddha* diagnostic tools *(Naadi, Envagai Thervugal)* to document findings. *Thodam* involvement will be analyzed to form a *Kutram*-based clinical picture.
Step 02 (Next 60 Minutes): In small groups, students will enact role-play scenarios, explaining findings and management plans to caregivers. They will recommend Siddha formulations such as *Urai Mathirai, Seenthil Kudineer,* and external applications like *Ottradam*. Students will correlate their choices with classical *Siddha* references and reflect on limitations or modifications needed in pediatric practice.
Assessment (Final 30 Minutes): Teacher will assess history taking and examination accuracy using demonstration checklists. Simulated patients will give feedback on communication quality. Role-play performance will be evaluated for clarity, therapeutic appropriateness, and *Siddha* principle application. A structured viva will test student recall of classical formulations and justification of selected treatments.

Practical Training 3.2 : Clinical Diagnosis and Siddha-Based Communication for *Theerai, Vikkal, and Thaagam*

Total Duration of the Activities: 2 Hours
Students will clinically evaluate simulated pediatric patients presenting with intestinal dysfunction *(Theerai),* persistent hiccups *(Vikkal),* and excessive thirst *(Thaagam).* Under teacher supervision, they will identify symptom clusters, perform *Kuttram* assessments, and classify the disorders using Siddha principles. Students will reference classical Siddha texts to select internal and external treatments, dietary modifications, and preventive strategies. They will engage in role-play to practice communication of Siddha diagnoses and management plans to caregivers.
Instructions to Students (First 30 Minutes): Teacher will guide students to observe simulated pediatric patients and take complete histories. Students must reference Siddha classical classifications to identify disorder types and *Mukkutram* predominance. Prepare to present a diagnosis, recommend a treatment plan, and participate in caregiver role-play simulating clinical communication.
Students' Activities (Next 60 min - 30 min +30 min)
Step 01 (First 30 Minutes): Under teacher supervision, students will interact with simulated pediatric cases. They will document clinical history, perform focused examination, and identify the condition as one of the seven types of *Theerai* or the respective subtype of *Vikkal or Thaagam.* Students will use Siddha nosology to document *Kutram* involvement and record findings.
Step 02 (Next 30 Minutes): Students will be paired for role-play scenarios simulating interaction with a caregiver. They will present Siddha-based diagnosis, propose internal and external treatments, and explain supportive care including *Pathiyam* and lifestyle adjustments. Peer and teacher feedback will follow each role-play to refine clinical communication and treatment rationale.
Assessment (Final 30 Minutes): Teacher will assess students' ability to collect history, identify condition type, and explain treatment using Siddha logic. Observation checklists will capture diagnostic reasoning and practical communication. A short viva will evaluate students' knowledge of classical Siddha treatment principles for *Theerai, Vikkal, and Thaagam,* including differentiation and prognosis.

Practical Training 3.3 : Siddha Diagnosis and Management of *Vayitru Valigal* Subtypes in Pediatric Cases

Total Duration of the Activities: 3 Hours

Sudents will be introduced to the Siddha classification of *Vayitru Valigal,* covering 3 types each of *Vaaivu and Kunmam,* 6 types of *Ulaimaanthai,* and 3 types of *Kaduppu*. Using real or simulated pediatric cases, teachers will demonstrate abdominal examination techniques and *Siddha* diagnostic tools such as *Naadi, Ennvagai Thervugal, and Kuttram analysis.* Students will identify symptom patterns, perform classification, and develop preliminary Siddha-based treatment plans. Peer discussion and faculty feedback will reinforce clinical logic and treatment decisions.

Instructions to Students (First 30 Minutes): Teacher will conduct bedside demonstrations of pediatric abdominal assessment. Students will observe signs like distension, bowel irregularity, and localized pain. Instructions will emphasize how each condition reflects humour imbalance *(Vali, Azhal, Iyyam)* and is influenced by dietary or lifestyle factors. Students will use checklists to document observations and engage in peer dialogue to discuss initial diagnostic impressions.

Students' Activities

Step 01 (First 60 Minutes): Under teacher supervision, students will examine real or simulated pediatric patients. They will document the clinical features of *Vaaivu, Kunmam, Ulaimaanthai, and Kaduppu.* Siddha diagnostic methods including *Naadi and Ennvagai Thervu* will be used to identify *kutram* involvement. Students will perform differential diagnosis to distinguish between overlapping symptom profiles of the subtypes.

Step 02 (Next 60 Minutes): Students will classify the condition under appropriate Siddha nosological categories. They will propose Siddha-based treatment strategies, including internal medicines, external applications, *paatiyam,* and possible preventive advice. Each team will present their findings, justifying their diagnosis and management plan using classical Siddha references. Feedback will be provided by faculty and peers.

Assessment (Final 30 Minutes): Teacher will evaluate each student using a structured case-based assessment and direct observation checklist during clinical examination. A Mini-CEX will be conducted to assess each student's diagnostic reasoning, accuracy of classification, communication during case presentation, and ability to explain findings and treatment from a *Siddha* perspective.

Practical Training 3.4 : Clinical Identification and Siddha Management of Pediatric *Moola Noigal, Pavuthiram and Moola Rogam*

Total Duration of the Activities: 2 Hours

This practical provides students with hands-on learning for diagnosing pediatric anorectal conditions—*Moola Noigal* (piles), *Pavuthiram* (fistula), and *Moola Rogam* (anal diseases)—based on Siddha principles. Under teacher supervision, students will observe clinical demonstrations and engage in simulated case interactions. They will apply diagnostic methods such as *Naadi and Envagai Thervugal*, differentiate the six types of each condition, and suggest Siddha-based management strategies. Team-based presentations and symptom charting will enhance diagnostic clarity and peer learning.

Instructions to Students (First 15 Minutes): Teacher will demonstrate pediatric anorectal examination techniques using visual models or simulation. Students are expected to observe signs such as lesion type, pain, bleeding, and associated *thodam* predominance. Instructions will cover Siddha diagnostic methods *(Naadi, Envagai Thervugal),* symptom documentation, and key features for identifying the six types of each condition, including indicators for prognosis.

Students' Activities

Step 01 (First 60 Minutes): Under teacher guidance, students will assess simulated pediatric cases. They will record presenting complaints, conduct symptom-based

classification using Siddha nosology, and document findings systematically. Teams will simulate patient history-taking and basic guided examination to distinguish between *Moola Noigal, Pavuthiram, and Moola Rogam.*
Step 02 (Next 30 Minutes): Each team will use their documented findings to propose Siddha-based management strategies, including internal medicine, external applications, and dietary advice. They will present their assigned case to peers and justify their diagnosis and treatment plan using classical Siddha principles and *kuttram*-based reasoning.
Assessment (Final 15 Minutes): Teacher will conduct case-based evaluations to assess diagnostic accuracy and interpretation of findings. Mini-CEX will be used to evaluate clinical performance during simulated interactions, including history-taking, communication, and clinical reasoning. Presentation clarity, use of Siddha terminology, and treatment alignment with classical guidelines will be key evaluation points.

Practical Training 3.5 : Clinical Diagnosis and Siddha Management of *Kazhicchal* and Related Diarrheal Disorders

Total Duration of the Activities: 3 Hours
This practical provides structured clinical exposure to pediatric cases (real or simulated) presenting with various forms of *Kazhicchal Noigal* and related Siddha-classified diarrheal conditions such as *Athisaaram, Kiraani, Seethabethi, and Neerpaadu.* Under teacher supervision, students will assess symptoms, apply *Siddha* diagnostic logic, classify conditions by subtype, and develop individualized treatment protocols including internal remedies, dietary guidelines *(Pathiyam),* and preventive measures. Role-play and group discussions will strengthen decision-making and patient communication skills.
Instructions to Students (First 30 Minutes): Teacher will provide a classification overview of *Kazhicchal Noigal* and associated Siddha diarrheal disorders. Students will observe examination demonstrations and engage with simulated pediatric cases. They are expected to classify the type of *Kazhicchal* or diarrheal illness, identify *kuttram* involvement, and prepare for group discussions and role-play focused on therapeutic planning.
Students' Activities
Step 01 (First 60 Minutes): Under teacher supervision, students will examine pediatric case simulations, observe key symptoms such as frequency, nature of stools, dehydration, and systemic signs. They will apply Siddha diagnostic tools *(e.g., Naadi, Envagai Thervu),* classify conditions *(e.g., Vali Kazhicchal, Seethabethi),* and document findings based on humor dominance and disease onset.
Step 02 (Next 60 Minutes): Students will work in small groups to design Siddha treatment protocols including internal medicines *(e.g., Urai Mathirai, Elathy Kudineer),* external therapies, diet regulations *(Pathiyam),* and prevention strategies. Each team will present their plan through role-play or simulated consultation, justifying their treatment choices using classical Siddha references and *kuttram* analysis.
Assessment (Final 30 Minutes): Teacher will conduct Mini-CEX evaluations to observe each student's clinical skills, diagnostic reasoning, and treatment formulation. Structured viva sessions will assess understanding of disease classification, Siddha therapeutic logic, and communication skills during simulated patient role-plays. Documentation will also be reviewed for accuracy and completeness.

Practical Training 3.6 : Clinical Classification and Siddha Management of *Vaanthi and Sarthal*

Total Duration of the Activities: 2 Hours

Students will engage in hands-on exposure to pediatric patients or simulated cases presenting with vomiting *(Vaanthi)* and retching *(Sarthal).* Under teacher supervision, they will observe symptom patterns, perform clinical assessments using Siddha tools and classify conditions into three types of *Vaanthi* and five types of *Sarthal.* Through guided group discussions, students will prepare appropriate treatment plans rooted in Siddha nosology, emphasizing humour involvement and causative factors.
Instructions to Students (First 20 Minutes): Teacher will demonstrate evaluation techniques for *Vaanthi* and *Sarthal* using simulated cases. Students will observe symptom patterns, note physical signs, and understand humoural implications. Each student is expected to classify the condition, document their findings, and participate in group discussion to determine suitable Siddha interventions.
Students' Activities
Step 01 (First 40 Minutes): Under teacher guidance, students will work in pairs to perform case history-taking with simulated patients. They will assess humoural imbalances, document presenting symptoms, and classify the condition into specific types of *Vaanthi (e.g., Vali Vaanthi)* or *Sarthal (e.g., Pitha Sarthal)* based on Siddha *principles.*
Step 02 (Next 40 Minutes): Students will engage in guided group discussion to plan treatment strategies, including internal medicines *(e.g., Elathy Ilagam, Karisalai Kudineer),* external applications, and *Pathiyam.* They will role-play parental counselling and present their diagnostic reasoning and management plan for faculty review and feedback.
Assessment (Final 20 Minutes): Teacher will assess students' performance based on interaction with simulated patients, accuracy in classification, and application of Siddha treatment logic. A structured oral viva will evaluate clinical reasoning, Siddha terminology use, and ability to communicate management plans. Practical observation checklists will guide evaluation.

Practical Training 3.7 : Clinical Diagnosis and Treatment Planning for Pediatric *Maantha Noigal*

Total Duration of the Activities: 3 Hours
Students will engage in the clinical observation and hands-on documentation of ten significant types of *Maantha Noigal* in pediatric patients. Under teacher supervision, they will assess abdominal pain, bloating, vomiting, and altered bowel habits. Using Siddha diagnostic tools and humor-based reasoning, students will classify disorders, document causes, and formulate individualized treatment protocols. The practical reinforces deep clinical understanding of Siddha gastrointestinal nosology and treatment logic.
Instructions to Students (First 30 Minutes): Teacher will provide Siddha classical references and pediatric case records on *Maantha Noigal.* Students are expected to review humor imbalances *(kuttram),* faulty digestion, diet-related triggers, and seasonal influences. Students must be prepared to take clinical histories, analyze complaints, and classify the conditions using *Siddha* nosology and diagnostic frameworks.
Students' Activities
Step 01 (First 60 Minutes): Under teacher guidance, students will examine real or simulated pediatric cases showing indigestion symptoms. They will take histories, document presenting complaints, and classify conditions such as *Aama Maantham, Vatha Maantham, or Vali-azhal Maantham.* Findings will include *kuttram* involvement, etiological factors, symptom severity, and data from Siddha diagnostic methods like *Envagai Thervugal.*
Step 02 (Next 60 Minutes): Students will formulate and present individualized Siddha-based treatment plans for each case. This includes internal medicines *(e.g., Elathy Kudineer),* external therapies *(e.g., Uzhichil, Ottradam), Pathiyam,* and caregiver guidance. They will compare symptom clusters and treatment approaches across *Maantha*

types and identify cases needing chronic care or dietary regulation.
Assessment (Final 30 Minutes): Teacher will conduct a Mini-CEX to evaluate diagnostic skill, interaction with simulated patients, and documentation quality. A practical viva will test students' understanding of *Maantha Noigal* subtypes and therapeutic logic. Case records and presentation clarity will be assessed for Siddha principle accuracy and real-life applicability.

Practical Training 3.8 : Clinical Interpretation and Communication of *Maantha Noigal* through Charts, Enactments, and Puzzles

Total Duration of the Activities: 2 Hours
This session focuses on enhancing students' clinical understanding and communication of *Maantha Noigal* in children through interactive, creative formats. Students will use visual (charts), dramatized (role play), and cognitive (puzzle-solving) strategies to reinforce their learning of Siddha gastroenterological classifications, symptomatology, and treatment principles. Under teacher supervision, individual and group tasks will help bridge clinical reasoning with communication and educational creativity.
Instructions to Students (First 15 Minutes): Teacher will brief students on the 10 commonly encountered types of *Maantha Noigal*, including classification, key symptoms, and Siddha treatment approaches. Students will be divided into teams, each assigned to present selected conditions using visual charts, role plays simulating clinical consultations, oral presentations, and clinical puzzle activities. Students are encouraged to be creative while ensuring accuracy and Siddha-based clarity.
Students' Activities
Step 01 (First 60 Minutes): Under teacher supervision, students will create concept charts outlining types of *Maantha Noigal,* diagnostic signs, and *kutram* involvement. Simultaneously, they will prepare and rehearse short role plays simulating pediatric clinical consultations with parents, demonstrating communication of symptoms and Siddha treatment rationale.
Step 02 (Next 30 Minutes): Each group will present their clinical charts and perform their role plays for peer learning. This will be followed by a group puzzle-solving activity focused on differentiating Maantha types, *kuttram* patterns, and Siddha management logic. Group discussion will be encouraged to explain their reasoning.
Assessment (Final 15 Minutes): Teacher will assess students using observation checklists during role plays and presentations. Evaluation criteria will include clarity, Siddha clinical accuracy, visual quality of charts, and reasoning shown in puzzle-solving tasks. Teamwork, originality, and the ability to communicate Siddha principles effectively will form part of the overall assessment.

Experiential learning Activity

Experiential-Learning 3.1 : Clinical Identification and Classification of *Kudaletram* and *Kudalirakka Noigal*

Total Duration of the Activities 3 Hours
Students will engage in reviewing pediatric clinical cases and apply *Siddha* diagnostic techniques to identify six types of *Kudaletram* and differentiate *Kudalirakka noigal.* By analyzing symptom patterns, *thodam* involvement, disease progression, and classical text descriptions, students will classify the cases accurately. Models and simulated case scenarios will support the clinical reasoning process.
Instructions to Students (First 30 mins) Teacher will explain the classification of *Kudaletram and Theerai,* highlighting unique symptomatology. Students must focus on the distinguishing clinical signs and symptoms described in Siddha literature and prepare to apply these insights during simulated pediatric case analysis sessions.

Students' Activities (Next 120 mins - 60 mins + 60mins)
Step 01 (First 60 Minutes): Students will individually examine simulated OPD/IPD case records, document key symptoms, and classify the *Kudaletram* type, analyzing causative factors and *thodam* derangements.
Step 02 (Second 60 Minutes): Students will engage in peer discussions to compare findings, refine diagnostic approaches, and compile a detailed checklist aligning classical Siddha classifications with clinical case scenarios.
Assessment (Final 30 Minutes) Teacher will assess students through a case-based and conduct a practical viva to evaluate students' ability to classify *Kudaletram* types accurately and apply Siddha diagnostic methodologies in pediatric gastrointestinal disorders.

Experiential-Learning 3.2 : Diagnostic Understanding and Evaluation of *Vikkal and Thaagam*

Total Duration of the Activities 3 Hours
Students will study the clinical features, classifications, and etiological factors of *Vikkal* (hiccups) and *Thaagam* (thirst disorders) from Siddha literature. They will analyze pediatric clinical cases, classify the type of disorder, and evaluate the suitability of Siddha treatment protocols. Case-based discussions will encourage critical appraisal of treatment effectiveness and diagnostic reasoning based on Siddha principles.
Instructions to Students (First 30 mins) Teacher will explain the definitions, types, causes, and diagnostic indicators for *Vikkal and Thaagam* from Siddha classics. Students must listen carefully, note clinical symptom patterns, and prepare to apply classical diagnostic frameworks while analyzing pediatric case scenarios during the session.
Students' Activities (Next 120 mins - 60 mins + 60 mins)
Step 01 (First 60 Minutes): Students will analyze pediatric clinical cases, identify the type of *Vikkal or Thaagam* based on symptoms and causative factors, and document diagnostic justifications. They will review Siddha treatment protocols including medicines, dosages, and therapeutic indications.
Step 02 (Second 60 Minutes): Students will critically discuss the outcomes of the treatments, compare case progressions, and compile a comprehensive understanding of effective management strategies for *Vikkal and Thaagam* using Siddha approaches.
Assessment (Final 30 Minutes) Teacher will assess students through practical viva, focusing on the accuracy of disease classification, evaluation of Siddha treatment protocols, and application of Siddha diagnostic and management principles in pediatric clinical practice.

Experiential-Learning 3.3 : Clinical Examination and Classification of Pediatric *Moola Noigal, Pavuthiram, and Moola Rogam*

Total Duration of the Activities 3 Hours
Students will observe the clinical examination of pediatric anorectal disorders under the guidance of a Siddha physician. They will focus on identifying clinical signs for the six types of *Moola Noigal, Pavuthiram, and Moola Rogam.* Students will then perform guided examinations, document findings, classify conditions based on Siddha texts, and participate in peer group discussions to compare diagnostic outcomes.
Instructions to Students (First 30 mins)
Teacher will explain pediatric anorectal examination techniques and the clinical classification criteria for *Moola Noigal, Pavuthiram, and Moola Rogam.* Students must pay close attention to signs such as pain, inflammation, swelling, prolapse, and note symptom correlations during the examination process.

Students' Activities (Next 120 mins - 60 mins + 60 mins)
Step 01 (First 60 Minutes) Students will perform supervised clinical examinations on pediatric cases presenting with anorectal complaints. They will document signs, classify the disorder into one of the six types described in Siddha medicine, and note any risk factors or complications observed.
Step 02 (Second 60 Minutes) Students will engage in structured group discussions to present their clinical findings. They will compare classifications, critically analyze examination outcomes, and compile key differential features for each condition based on clinical signs and classical Siddha references.
Assessment (Final 30 Minutes) Teacher will conduct direct observation and a practical viva session. Students must present clinical case findings, explain classification reasoning, and discuss the clinical relevance of symptoms. Assessment will include review of log books and evaluation through a procedural skills checklist.

Experiential-Learning 3.4 : Clinical Examination and Classification of Pediatric *Vayitru Valigal*

Total Duration of the Activities 3 Hours
Students will observe and perform clinical examination of pediatric patients presenting with abdominal pain in OPD/IPD settings. Faculty will demonstrate signs specific to *Vaaivu* (3 types), *Kunmam* (3 types), *Ulaimaanthai* (6 types), and *Kaduppu* (3 types). Students will then perform systematic assessments, document findings, classify cases based on Siddha etiopathogenesis, and participate in group discussions for differential diagnosis and refinement of clinical skills.
Instructions to Students (First 20 Minutes) Teacher will introduce clinical examination techniques to identify various abdominal pain types in pediatric patients, emphasizing signs like abdominal distension, tenderness, bowel habits, and palpation findings. Students must observe meticulously to apply Siddha-based classification principles during their case analysis.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will perform supervised clinical examinations on pediatric cases with abdominal complaints. They will document key findings such as site, nature of pain, associated signs, and categorize them according to Siddha classifications of *Vaaivu, Kunmam, Ulaimaanthai, and Kaduppu.*
Step 02 (Second 70 Minutes) Students will participate in group discussions, presenting their individual case findings. They will critically compare observed symptoms with Siddha classical descriptions, evaluate classification accuracy, and discuss Siddha-based etiopathogenesis and differential diagnostic points among the types of *Vayitru Valigal*.
Assessment (Final 20 Minutes) Teacher will assess students through direct observation during examinations and evaluation of case discussions. Each student's clinical case-taking skills, ability to accurately classify disorders, and documentation will be reviewed using structured checklists.

Experiential-Learning 3.5 : Clinical and Laboratory Differential Diagnosis of Pediatric Diarrheal Disorders

Total Duration of the Activities 4 Hours
Students will conduct clinical examinations and review laboratory findings of pediatric patients presenting with diarrheal symptoms. By integrating
Siddha classifications *(Athisaaram, Kiraani, Seethabethi, Neerpaadu)* with modern investigations such as stool examination and electrolyte profiles, students will perform differential diagnoses. Group discussions and presentations will reinforce clinical reasoning skills and Siddha diagnostic application.
Instructions to Students (First 30 mins)

Teacher will guide students through the clinical evaluation of pediatric diarrheal cases. Students must observe, actively participate in case-taking, and focus on correlating clinical signs with laboratory reports to differentiate Siddha classifications. Students should prepare for discussions and documentation of findings.
Students' Activities (Next 180 mins - 60mins + 60 mins +60 mins)
Step 01 (First 60 Minutes): Students will collect clinical history, perform physical examination focusing on hydration status, stool characteristics, and systemic symptoms under supervision.
Step 02 (Second 60 Minutes): Students will review and interpret laboratory data (stool analysis, electrolytes) to correlate findings with *Siddha* and modern clinical classifications.
Step 03 (Third 60 Minutes): Students will document findings, perform differential diagnoses, classify according to Siddha nosology, and present their case analyses in groups to peers and teacher.
Assessment (Final 30 Minutes) Teacher will assess students using Mini-CEX, focusing on clinical judgment, laboratory interpretation, and Siddha classification accuracy. Record keeping and case documentation will also be evaluated for critical thinking, systematic approach, and completeness.

Experiential-Learning 3.6 : Clinical and Laboratory Differentiation of *Vaanthi Noigal* and *Sarthal*

Total Duration of the Activities 3 Hours
Students will clinically assess pediatric patients presenting with vomiting *(Vaanthi)* and retching *(Sarthal).* They will apply Siddha diagnostic methods like *Enn Vagai Thervu and Naadi* examination and correlate these findings with laboratory investigations such as hydration status and electrolyte imbalances. The focus will be on accurate Siddha classification of three types of *Vaanthi* and five types of *Sarthal*, based on clinical and laboratory evidence.
Instructions to Students (First 20 Minutes)
Teacher will explain the key clinical examination techniques for pediatric vomiting and retching disorders and the *Siddha*-based differential diagnosis approach. Students must carefully observe clinical signs, collect history, interpret lab reports, and focus on differentiating *Vaanthi and Sarthal* according to Siddha classical texts.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will conduct supervised history-taking and clinical examinations for pediatric cases presenting with vomiting and retching. They will document *Enn Vagai Thervu signs, Naadi findings*, hydration status, stool observations, and correlate these with lab parameters to arrive at a provisional Siddha diagnosis.
Step 02 (Second 70 Minutes) Students will individually classify cases into types of *Vaanthi and Sarthal*, based on Siddha diagnostic indicators and lab findings. They will then engage in structured peer discussions to refine their differential diagnosis, highlighting key distinguishing clinical and laboratory features.
Assessment (Final 20 Minutes) Teacher will assess students through Mini-CEX, focusing on their ability to correctly classify vomiting disorders, interpret clinical and lab data, and apply Siddha diagnostic principles. Log books and case documentation will also be reviewed for completeness and clinical reasoning quality.

Experiential-Learning 3.7 : Literary Documentation of *Maantha Noigal* Classifications

Total Duration of the Activities 3 Hours
Students will refer to Siddha classical texts to explore various classifications of *Maantha Noigal* (indigestion). They will analyze six classification systems (18, 19, 13, 8, 31,

and 17 types), identify diagnostic markers, and understand clinical relevance. Findings will be organized into a structured document for pediatric diagnostic use, followed by group discussions for refinement.
Instructions to Students (First 20 Minutes) Teacher will instruct students to use Siddha classical references to compile and document the classifications of *Maantha Noigal*, focusing on subtypes like 18, 19, 13, 8, 31, and 17. Students must compare sources, extract clinical features, and collaboratively prepare a structured and comprehensive compilation.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will work individually or in small teams to extract classification details from Siddha classical texts. They will document each system, noting specific differentiating factors such as etiology, clinical features, and *thodam* influences.
Step 02 (Second 70 Minutes) Students will consolidate their documentation into a structured format, organizing the classification systems systematically. Group discussions will refine the content, ensuring completeness, clarity, and clinical relevance for pediatric diagnosis.
Assessment (Final 20 Minutes) Teacher will assess students based on the compiled document and brief group presentations. Evaluation criteria will include the accuracy of classifications, completeness of coverage, clinical relevance, and clarity of the final compiled reference material.

Experiential-Learning 3.8 : Clinical Case Evaluation and Diagnosis of *Maantha Noikal*

Total Duration of the Activities 4 Hours
Students will clinically examine real or simulated pediatric cases presenting with digestive complaints. Each student will choose one type of *Maantha Noi* for detailed evaluation. Clinical findings, including *Udal Kattugal* analysis and *Ennvagai Thervu,* will be documented systematically in Case Record Forms (CRFs). Students will then perform differential diagnoses and engage in peer discussions to finalize Siddha-based diagnoses.
Instructions to Students (First 15 Minutes) Teacher will explain the approach to clinical examination, Siddha nosological diagnosis, and differential diagnosis for *Maantha Noigal.* Students must carefully evaluate assigned pediatric cases, document symptoms based on Siddha principles, and prepare to justify their diagnosis through differential reasoning.
Students' Activities (210 Minutes)
Step 01 (First 70 Minutes) Students will perform complete clinical examinations of assigned pediatric patients, including *Ennvagai Thervu* evaluation. They will analyze symptoms, history, and *Udal Kattugal* status to make a preliminary diagnosis of *Maantha Noi* type.
Step 02 (Second 70 Minutes) Students will fill the Case Record Form (CRF) with detailed clinical data, including patient history, examination findings, *Naadi* interpretation, and classical features for the identified *Maantha Noi* type. Comprehensive and structured documentation is mandatory.
Step 03 (Third 70 Minutes) Students will perform differential diagnosis by comparing symptoms with other digestive disorders like *Athisaaram* and *Kiraani.* In peer discussion sessions, they will present their findings, diagnostic reasoning, and Siddha interpretation to validate the diagnosis.
Assessment (Final 15 Minutes) Teacher will assess students based on CRF evaluation, participation in group case discussions, and a practical viva focusing on diagnostic skills, differential analysis, and application of Siddha clinical principles.

Modular Assessment

Assessment method	Hour
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 6C. **Section A** - This 25-mark practical assessment evaluates students' ability to visually present structured information through a poster on pediatric gastrointestinal /ano-rectal *Siddha* disorders, and to analyze a relevant research paper or classical reference. It promotes comprehension, communication, scientific reasoning, and evidence-based integration in Siddha pediatric practice. Instructions to Students: Prepare a poster on any one condition from *Kudaletram, Kudalirakka Noikal, Theerai, Vikkal, Thaakam, Acute Abdominal Pain and Ano-Rectal Disorders* highlighting *Siddha* classification, symptomatology, and management. Students will also critically read a given article/excerpt and summarize key insights, clinical relevance, and treatment validation during a brief oral review. No digital tools or notes allowed during presentation. Instructions to Teachers: Assess posters based on content clarity, visual structure, and Siddha accuracy from M03.U1 and M03.U2. Select a short Siddha-based article or reference paper for critical reading. Evaluate students on their ability to interpret key concepts, extract treatment rationale, and relate findings to clinical practice. Use rubrics to ensure objective grading. Mark Distribution: The total marks for this assessment are 25. Poster Content evaluating Siddha accuracy, layout, and classification carries 8 marks. Visual Design and Clinical Relevance is allotted 5 marks. Critical Reading Summary and Interpretation holds 7 marks, while Integration with *Siddha* Pediatric Practice and Oral Explanation Clarity carry 3 and 2 marks, respectively. & Section B - This 25-mark scenario-based Mini-CEX assessment evaluates students' clinical approach to pediatric vomiting, diarrhea, and indigestion conditions. Through live or simulated cases, students perform structured case-taking, distinguish overlapping symptoms, apply *Siddha* classification, and recommend treatment strategies using internal, external, and dietary interventions with justification during direct observation. Instructions to Students: Students will receive a pediatric case scenario related to *Vaanthi and Kazhicchal Related Conditions and Maantha Noigal.* Conduct structured *Siddha* case-taking, identify the disease subtype, and present a therapeutic plan. Students' performance will be directly observed and followed by brief questions. Include dietary and preventive care in your response. No reference materials allowed. Instructions to Teachers: Present students with a relevant scenario reflecting *Vaanthi, Kazhicchal/ Maantha Noikal* from M03.U3 and M03.U4. Observe the student's history-taking, diagnostic logic, treatment explanation, and patient/caregiver interaction. Evaluate clarity, accuracy, and *Siddha*-modern integration. Use a structured Mini-CEX rubric focusing on observation, reasoning, communication, and care planning. Mark Distribution: The total marks for this assessment are 25. Structured Case Taking (History, Symptoms, Subtype Identification) carries 7 marks, *Siddha* Diagnostic Reasoning and Classification is allotted 6 marks, Therapeutic Plan with Internal/External Medicine and Diet receives 6 marks, while Preventive Care and Prognosis and Communication/Confidence are assigned 3 marks each. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	4

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 4 : ????????????? ?????? ???????, ?????? ??????? ????????? ?????????? ??????? - Kuzhanthaigalin Narampu Mandalam, Thasaigal Matrum Mootukalai Paathikkum Noigal (Pediatric Diseases of Nervous System, Musculoskeletal System and Rheumatology):

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

Describe *Valippu, Vali, and Puraveechu Noikal* in pediatric cases.
Identify clinical features and causes of *Soolai, Moorchai, and Mayakkam.*
Analyze *Sura Vaatham and Akkini Vaatham* with Siddha perspectives.
Analyze Siddha stages and management of *Mel Moochu and Athisaara Vaatham.*
Apply Siddha diagnostic tools to assess and differentiate *Baala Vaatham.*
Integrate *Varmam, Yoga,* and dietary regimens in treating *Baala Vaatham.*

M 4 Unit 1 ??????? ????, ??? ????, ????, ???????? ??????? ????????? - Valippu Noi, Vali Noi, Suzhali, Nadukkan, and Puraveechu

4.1.1 *Valippu Noi :* Classification into 4 major types and 16 subtypes with Siddha diagnostic criteria, etiological factors, clinical features, and therapeutic interventions including internal and external treatments. 4.1.2 *Vali Noi* – Seven types of *Vali Noi* with symptomatology, siddha diagnosis, humoural involvement, and *Siddha* treatment modalities suitable for pediatric care. 4.1.3 *Puraveechu* – Five categories of *Puraveechu* based on spasm-related siddha pathogenesis, presenting symptoms in children, and Siddha therapeutic approaches focused on holistic care. 4.1.4 *Suzhali* – Four types of *Suzhali* with neuro-muscular

manifestations, Siddha-based interpretation of pathophysiology, and integrated treatment plans. 4.1.5 *Nadukkan* – Seven types of *Nadukkan* characterized by tremor intensity and site, preventive strategies, curative Siddha regimens, and rehabilitative guidelines for pediatric neuromuscular health.

References: 58,60,84,87,88,91,117,118

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Describe *Valippu Noi* classifications and corresponding Siddha treatment protocols.	1	Lecture	CK	Knows-how	CBL,D,TBL,L&PPT
CO1,CO3,CO5	Describe Siddha-based classification and treatment protocols for *Vali noi* and *Puraveechu.*	1	Lecture	CK	Know	CBL,LS,L&GD,PL
CO1,CO3,CO5	Describe Siddha-based classification and treatment protocols for *Suzhi Noi* and *Nadukkan*	1	Lecture	CK	Know	LS,L&GD,CBL,C_L
CO1,CO2,CO6	Document Siddha etiology, characteristics, and classification of pediatric neurological disorders	4	Experiential-Learning 4.1	CK	Does	LS,TBL,C_L
CO1,CO3,CO4	Apply Siddha therapeutic protocols for pediatric neuromuscular conditions.	3	Experiential-Learning 4.2	CAP	Does	PAL,D-BED,CBL
CO3,CO4	Identify and differentiate types of *Valippu Noi and Suzhali* in pediatric cases.	3	Practical Training 4.1	PSY-GUD	Shows-how	IBL,D-BED,CBL,SIM
CO2,CO3,CO4	Perform Siddha diagnostic procedures and treatment for *Vali Noi, Puraveechu, and Nadukkan.*	3	Practical Training 4.2	PSY-MEC	Shows-how	SIM,PAL,CBL,D-BED

M 4 Unit 2 ????, ???????? ??????? ??????? - Soolai, Moorchai and Mayakkam

4.2.1 *Soolai* – Classification of *Soolai* into six types with symptomatology, etiological patterns, and *Siddha*-based internal and external treatments. 4.2.2 Pediatric *Soolai* – Causative factors, clinical progression, Siddha interpretations, and integrated management protocols including supportive measures for *Soolai* in children. 4.2.3 *Moorchai* – Eight types of *Moorchai* with distinguishing signs, Siddha-based diagnosis, preventive care, and therapeutic strategies suited for pediatric patients. 4.2.4 *Baalar Mayakkam* – Four types of *Baalar Mayakkam* with classification, clinical differentiation from similar conditions, and *Siddha* therapeutic principles for comprehensive care. 4.2.5 Diagnostic Methods and Prognosis in Pediatric Neuro-Functional Disorders: Application of Siddha diagnostic tools for *Soolai, Moorchai, and Mayakkam* with prognostic insights based on timely Siddha interventions.

References: 83,84,85,86,87

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Discuss Siddha classification and therapeutic principles for managing *Soolai* conditions.	1	Lecture	CS	Know	L&GD,BL,TBL,C_L
CO1,CO3,CO5	Describe classifications and Siddha protocols for *Moorchai and Baalar Mayakkam.*	1	Lecture	CK	Know	L_VC,CBL,TBL,D
CO2,CO6,CO8	Analyze Siddha classifications and diagnostic criteria for pediatric neurological conditions.	4	Experiential-Learning 4.3	CAN	Does	BL,C_L,PBL,LS,DIS
CO1,CO3,CO4	Apply Siddha treatment protocols for pediatric *Soolai, Moorchai, and Mayakkam.*	3	Experiential-Learning 4.4	PSY-GUD	Does	RLE,D-BED,TBL,CBL,SIM
CO3,CO5,CO6	Demonstrate proficiency in diagnosing and managing *Soolai and Moorchai.*	3	Practical Training 4.3	PSY-MEC	Shows-how	D-BED,TBL,SIM,CBL
CO3,CO4,CO6	Perform guided clinical examination and treatment of *Baalar Mayakkam.*	2	Practical Training 4.4	PSY-GUD	Shows-how	CBL,D-BED,SIM

M 4 Unit 3 ????????, ??????? ????? ??????? ?????????? ????? - Sura Vaadham, Akkini Vadham, Mel moochu Vadham

4.3.1 *Sura Vaatham* – Description of pediatric *Sura Vaatham* including symptomatology, etiological factors, and Siddha-based classifications highlighting fever-related *Vatha* imbalances. 4.3.2 *Akkini Vaatham* – Classification and clinical presentation of *Akkini Vaatham* in children, focusing on digestive fire disturbances and related Siddha therapeutic interpretations. 4.3.3 *Sura Vaatham vs. Akkini Vaatham* – Comparative analysis of *Sura Vaatham and Akkini Vaatham* with diagnostic distinctions using Siddha principles and evaluation tools. 4.3.4 *Mel Moochu Vaatham* – Stages of *Mel Moochu Vaatham*, Siddha external therapies, supportive regimens, and dietary interventions . 4.3.5 *Athisaara Vaatham* – Staging of *Athisaara Vaatham*, internal medicines, external applications and dietary regimens in Siddha pediatrics.

References: 82,88

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Describe the *Sura Vaatham and Akkini Vaatham*	1	Lecture	CK	Know	L&GD,C_L,CBL,BL
CO1,CO3,CO5	Discuss the Stages of *Mel Moochu Vaatham* and *Athisaara Vaatham*	1	Lecture	CS	Know	TBL,CBL,BL,L&GD
CO2,CO4,CO8	Analyze and document diagnostic features of pediatric *Vaatham* disorders.	3	Experiential-Learning 4.5	CAN	Does	LS,JC,W,BL,C_L
CO1,CO3,CO7	Perform Siddha treatments for pediatric *Vaatham* disorders	3	Experiential-Learning 4.6	PSY-MEC	Does	CBL,RLE,D-BED
CO3,CO4,CO5	Develop Siddha-based protocols and health education for *Sura, Akkni Vaatham* disorders.	3	Practical Training 4.5	PSY-ORG	Shows-how	SIM,PER,CBL
CO2,CO3,CO6	Apply and adapt Siddha first-aid and long-term therapies in emergencies.	3	Practical Training 4.6	PSY-ADT	Shows-how	D-BED,RP,SIM

M 4 Unit 4 ???????? - Baalavaatham

4.4.1 Classification of *Baala Vaatham* – Detailed classification of *Baala Vaatham* into 8 primary types and 40 subtypes based on Siddha neurological principles and

pediatric relevance. 4.4.2 Clinical Features, Causes, and Prognosis of *Baala Vaatham:* Symptomatology, causative factors, and prognosis of various *Baala Vaatham* types with emphasis on age-specific manifestations in children. 4.4.3 Siddha Diagnostic Tools for *Baala Vaatham:* Application of *Envagai Thervu, Udal Kattugal* assessment, *Naadi*, and visual cues for diagnosis and disease staging in pediatric *Baala Vaatham.* 4.4.4 Siddha Treatment Protocols – Therapeutic modalities including Siddha internal medicines, *Varmam techniques, Thokkanam*, and *poochu* for effective management of *Baala Vaatham.* 4.4.5 Supportive Role of *Varmam, Yoga, and Paatiyam:* Integrative use of Siddha *Varmam* therapy, *Yoga* practices, and *Paatiyam* (dietary guidance) in rehabilitation and functional improvement in pediatric neurology.

References: 58,61,68,82,88

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Discuss *Baalavaatham* systematically into eight and forty types.	1	Lecture	CK	Know	L&GD,C_L,CBL,TBL,LS
CO1,CO2,CO5	Describe clinical features and causative factors of *Baalavaatham* comprehensively.	1	Lecture	CK	Know	SDL,CBL,PL,L&GD
CO1,CO3,CO5	Summarize traditional Siddha approaches for treating various *Baalavaatham* types.	1	Lecture	CS	Know	LS,BL,SDL,L&GD,CBL
CO2,CO4,CO6	Analyze *Baala Vaatham* types and differentiate clinical features for diagnosis.	3	Experiential-Learning 4.7	CAN	Does	TPW,Mnt,LS,C_L
CO1,CO3,CO5	Perform Siddha internal and external therapies for *Baala Vaatham*	3	Experiential-Learning 4.8	PSY-MEC	Does	TBL,PAL,D-BED
CO3,CO4,CO6	Adapt Siddha clinical techniques and manage various types of *Baala Vaatham*	3	Practical Training 4.7	PSY-ADT	Shows-how	C_L,SIM,D-BED,RLE

Practical Training Activity

Practical Training 4.1 : Clinical Examination, Diagnosis, and Management of *Valippu Noi and Suzhali*

Total Duration of the Activities: 3 Hours

This clinical session introduces students to pediatric neurological conditions classified under *Valippu Noi* (epilepsy) and *Suzhali* (convulsions) in Siddha medicine. Students will engage with real or simulated cases, perform Siddha diagnostic assessments including *Naadi and Envagai Thervugal*, and classify the condition into one of the 4 major or 16 *Valippu* subtypes, or 4 *Suzhali* types. Through supervised practice, they will develop and communicate individualized Siddha treatment strategies that include internal formulations, external therapies, lifestyle guidance *(Pathiyam)*, and long-term care.

Instructions to Students (First 30 Minutes): Teacher will explain the classical classification and symptomatology of *Valippu Noi and Suzhali* in Siddha texts. Students will observe real/simulated cases and focus on recording clinical history, identifying *thodam* imbalances, and performing *Naadi* assessment. Clinical forms and checklists will be provided to ensure standardized documentation. Students must be prepared to apply *Siddha principles* for classification and care planning.

Students' Activities

Step 01 (First 60 Minutes): Under teacher supervision, students will examine 2–3 pediatric neurological cases with symptoms such as convulsions, loss of consciousness, or limb tremors. They will perform history taking, observe *Naadi and Envagai Thervugal* assessments, and classify the case as per Siddha nosology (*Valippu or Suzhali* type). Symptom patterns, *Kuttram* involvement, and subtype identification will be documented for each case.

Step 02 (Next 60 Minutes): Students will form small groups to design management plans for each case, selecting appropriate Siddha internal medications (*e.g., Vallarai Ilagam, Valipor Kudineer)*, external applications *(e.g., Kottamalli Thylam, Pattru)*, and supportive measures like *Pathiyam and yoga.* They will conduct simulated caregiver counseling sessions to explain preventive strategies, relapse management, and long-term prognosis.

Assessment (Final 30 Minutes): Faculty will evaluate students using Mini-CEX during simulated patient interactions and case discussions. Assessment will focus on accurate classification, correct application of Siddha diagnostic tools, clarity of communication during caregiver role-plays, and completeness of written documentation. An oral viva will test students' understanding of Siddha neurology, formulations, and decision-making logic.

Practical Training 4.2 : Clinical Classification and Siddha Management of Pediatric *Vali Noi, Puraveechu, and Nadukkan*

Total Duration of the Activities: 3 Hours

This clinical practical immerses students in the Siddha diagnostic evaluation and management of three key pediatric neurological disorders: *Vali Noi* (7 types), *Puraveechu* (5 types), and *Nadukkan* (7 types). Students will assess real or simulated pediatric patients presenting with spasms, tremors, jerky movements, or imbalance. Under teacher supervision, they will apply diagnostic methods such as *Naadi and Envagai Thervu,* classify subtypes using Siddha nosology, and formulate individualized treatment protocols. The session emphasizes hands-on diagnostic experience, formulation of internal and external therapies, and counseling for long-term care and prevention.

Instructions to Students (First 30 Minutes): Teacher will demonstrate cases and explain Siddha classification systems for *Vali Noi, Puraveechu, and Nadukkan*. Students will observe patient presentations, record case histories, and practice *Naadi and Ennvagai Thervugal* under guidance. Focus on recognizing symptom clusters, *Kuttram* involvement, and differential Siddha diagnosis. Students will use structured case forms to document findings and prepare Siddha management plans.

Students' Activities

Step 01 (First 60 Minutes): Students will form small groups to assess 2–3 pediatric cases (real or simulated) presenting with spasmodic, tremor-like, or balance-related

symptoms. They will perform Siddha-based assessments including *Naadi and Ennvagai Thervugal,* and classify each case under the appropriate subtype of *Vali Noi, Puraveechu, or Nadukkan.* They will document humoural involvement, symptom progression, and differential points between the conditions using structured Siddha diagnostic templates.
Step 02 (Next 60 Minutes): Students will prepare treatment protocols including internal Siddha medicines *(e.g., Chooranam, Ilagam, or Mathirai),* external therapies (e.g., *Thylam, Ottradam, Pattru*), and supportive care. Through peer-assisted demonstrations, they will simulate patient/caregiver interaction and rehearse explanation of treatment plans, rehabilitation strategies, lifestyle corrections, and recurrence prevention.
Assessment (Final 30 Minutes): Faculty will assess each student through Mini-CEX for diagnostic accuracy, decision-making, and clinical application of Siddha nosology. A structured viva will evaluate classification clarity, therapeutic selection, and understanding of preventive care. Observation checklists will be used during case documentation, formulation discussion, and caregiver communication to evaluate completeness, professionalism, and confidence.

Practical Training 4.3 : Clinical Diagnosis and *Siddha* Management of Pediatric *Soolai and Moorchai*

Total Duration of the Activities: 3 Hours
This clinical practical introduces students to the *Siddha* classification, symptomatology, and therapeutic approaches for *Soolai* (delirium-like states) and *Moorchai* (syncope) in pediatric patients. Students will observe simulations and perform structured clinical evaluations using *Siddha* methods including *Naadi* and *Envagai Thervugal.* They will classify each condition, identify *thodam* imbalances, and propose individualized internal and external treatments. Learners will simulate communication with caregivers to deliver lifestyle and dietary recommendations and reinforce preventive care.
Instructions to Students (First 30 Minutes): Teacher will introduce the *Siddha* concepts of *Soolai* (6 types) and *Moorchai* (8 types), along with their classical explanations and clinical features. Students will observe demonstrations of simulated pediatric presentations and learn to identify symptom patterns such as altered consciousness, confusion, or syncope. Instruction will emphasize diagnostic clarity, differential features, and documentation of treatment plans.
Students' Activities
Step 01 (First 60 Minutes): Under teacher guidance, students will evaluate simulated pediatric patients showing signs of *Soolai or Moorchai.* Using *Siddha* diagnostic tools such as *Naadi* and behavior observation, they will assess humour involvement, document acute signs, and differentiate between subtypes. Students will record etiology, symptom triggers, and *kutram*-based pathogenesis.
Step 02 (Next 60 Minutes): Students will prepare personalized *Siddha* treatment plans for each simulated case. These will include internal herbal formulations, external therapies (e.g., *thylam* application), and supportive interventions. Teams will discuss prognosis, recurrence prevention, and simulate caregiver counseling to explain lifestyle corrections, early warning signs, and *Paatiyam*. Peer and faculty feedback will follow.
Assessment (Final 30 Minutes): Faculty will observe student performance during clinical simulation and documentation. A Mini-CEX will be conducted to assess clinical reasoning, procedural confidence, and treatment planning. Students will be asked case-based questions to validate their understanding of *Soolai and Moorchai* classification and therapy. A demonstration checklist will be used to evaluate practical skills and communication quality in caregiver interaction.

Practical Training 4.4 : Clinical Recognition and Siddha Management of *Baalar Mayakkam* in Children

Total Duration of the Activities: 2 Hours

This practical session focuses on recognizing the four types of *Baalar Mayakkam* (dizziness) in children through structured clinical assessments and Siddha diagnostic tools. Students will practice identifying symptom clusters, perform *Naadi and Ennvagai Thervu*, and differentiate *Baalar Mayakkam* from other central nervous system (CNS) or systemic disorders. Emphasis is placed on documenting humoural imbalances, simulating *Varmam* applications, and outlining individualized treatment plans using internal remedies, diet, and preventive approaches.

Instructions to Students (First 30 Minutes):

Teacher will demonstrate clinical signs and discuss the four Siddha types of *Baalar Mayakkam.* Students will participate in guided observation and symptom comparison exercises. Instructions will cover *Naadi* interpretation, *Ennvagai Thervu* application, and components of Siddha therapeutic planning, including internal herbal remedies, dietary advice, and *Varmam* protocols.

Students' Activities (Next 60 mins - 30 mins + 30 mins)

Step 01 (First 30 Minutes): In pairs, students will examine simulated pediatric patients exhibiting dizziness, balance issues, or faintness. They will take brief clinical histories, perform *Naadi* and *Ennvagai Thervu* assessments, and identify humoural (*kuttram*) involvement. Findings will be recorded with attention to Siddha classification of Baalar Mayakkam.

Step 02 (Next 30 Minutes): Students will document a concise case summary and formulate a Siddha treatment plan. This includes appropriate internal medicines, application of relevant *Varmam* points, dietary adjustments *(Pathiyam),* and prevention strategies. Each team will present their findings and receive feedback from faculty and peers, focusing on diagnosis accuracy and clinical reasoning.

Assessment (Final 30 Minutes): Faculty will conduct a practical viva to assess student understanding of *Baalar Mayakkam* types, diagnostic logic, and Siddha-based treatment formulation. Simulated case interactions will be observed to evaluate patient handling, communication, and application of *Varmam* and diagnostic techniques. Student performance will be guided by observation checklists and direct feedback.

Practical Training 4.5 : Clinical Diagnosis and Siddha Management of Pediatric *Sura Vaatham and Akkini Vaatham*

Total Duration of the Activities: 3 Hours

This clinical practical focuses on the identification, classification, and Siddha management of pediatric *Sura Vaatham* and *Akkini Vaatham.* Under teacher supervision, students will use Siddha diagnostic methods *(Naadi, Ennvagai Thervu)* to differentiate between the two conditions. They will prepare internal/external remedies suitable for pediatric care and compile standard treatment charts. Through culturally sensitive role-play activities, students will communicate lifestyle, dietary, and preventive strategies to caregivers, reinforcing their clinical and communication competencies.

Instructions to Students (First 30 Minutes):

Teacher will explain Siddha nosological concepts, symptoms, and classification of *Sura Vaatham and Akkini Vaatham*. Students will observe simulated cases and practice distinguishing features. Teacher will also guide students on formulating Siddha medicines and prepare them for caregiver counseling via structured role-play. Emphasis will be on accurate documentation, treatment alignment with *Siddha* classics, and preventive advice.

Students' Activities

Step 01 (First 60 Minutes): In small groups and under teacher supervision, students will examine case scenarios to differentiate *Sura Vaatham* from *Akkini Vaatham* using Siddha tools. They will record symptoms, kutram involvement, and develop standard treatment charts for both conditions. Internal and external therapies suited to pediatric patients *(e.g., Kudineer, Ilagam, Ottradam)* will be identified and documented.
Step 02 (Next 60 Minutes): Students will prepare a simple Siddha formulation commonly used for pediatric *Vaatham* disorders under teacher guidance. In parallel, they will engage in role-play sessions simulating caregiver counseling. Communication will focus on explaining *thodam* balance, *Pathiyam,* early warning signs, and lifestyle practices for preventing recurrence of *Vaatham*-related disorders.
Assessment (Final 30 Minutes): Teacher will assess each group's accuracy in clinical differentiation, quality of treatment protocols, and herbal preparation techniques. Role-plays will be evaluated for communication clarity, use of Siddha principles, and cultural sensitivity. A structured clinical viva will assess students' reasoning, diagnosis, and therapeutic planning for both *Sura and Akkini Vaatham.*

Practical Training 4.6 : Siddha Emergency Management of *Mel Moochu Vaatham* and *Athisaara Vaatham* in Children

Total Duration of the Activities: 3 Hours
This practical trains students to recognize and manage pediatric emergencies associated with *Mel Moochu Vaatham* (acute breathlessness) and *Athisaara Vaatham* (watery diarrhea with aggravated *Vatham*). Under teacher supervision, students will identify critical signs, apply *Siddha* first-aid through *Varmam* techniques, prepare emergency formulations, and simulate management sequences. Emphasis will also be placed on long-term recovery plans including diet, lifestyle, and Siddha rejuvenative therapies. Role-play sessions will build students' communication skills with caregivers, ensuring knowledge transfer for home-based care and recurrence prevention.
Instructions to Students (First 30 Minutes): Teacher will introduce the progressive signs and Siddha understanding of *Mel Moochu Vaatham* and *Athisaara Vaatham.* Students will be briefed on identifying danger signs, performing Siddha-based first-aid (including *Varmam points* like *Thilartha Kaalam),* and preparing Siddha formulations (e.g., herbal powders, decoctions). Focus will be placed on emergency stages, complication avoidance, and individualized long-term care strategies.
Students' Activities
Step 01 (First 60 Minutes): Under teacher supervision, students will work in teams to assess simulated pediatric emergencies. They will identify symptom progression stages, perform Siddha first-aid using Varmam techniques, and prepare emergency internal remedies (*e.g., Sukku-Chitharathai powder, Murungai Kudineer).* Students will simulate application during critical episodes and document observed outcomes.
Step 02 (Next 60 Minutes): Students will demonstrate complete Siddha management from acute stabilization to convalescence. Each team will formulate long-term care protocols including internal/external therapies, *Pathiyam,* lifestyle correction, and rejuvenation. Through caregiver role-play, students will educate on *thodam imbalance,* recurrence prevention, and first-aid readiness using home-based Siddha measures.
Assessment (Final 30 Minutes): Teacher will conduct DOPS to evaluate students' execution of Varmam techniques and preparation/application of Siddha remedies. Role-plays will be assessed for clinical accuracy, caregiver communication, and Siddha explanation clarity. A practical viva will test student ability to identify emergency stages, differentiate between Mel Moochu and Athisaara variants, and construct appropriate Siddha management plans.

Practical Training 4.7 : Clinical Diagnosis and Siddha Management of *Baala Vaatham* in Children

Total Duration of the Activities: 3 Hours

This clinical session introduces students to the identification and Siddha-based management of *Baala Vaatham* through real or simulated pediatric neurological cases. Under teacher supervision, students will observe and perform case analysis, differential diagnosis, and classification using *Siddha* examination tools. They will integrate classical therapies including internal medicines, *Varmam, Thokkanam*, yogic techniques, and *Pathiyam.* The session reinforces holistic pediatric care through simulated caregiver education, prognosis evaluation, and collaborative therapeutic planning.

Instructions to Students (First 30 Minutes): Teacher will explain the Siddha classification of *Baala Vaatham* and its neurological basis. Students will observe bedside demonstrations of *Varmam and Thokkanam* techniques and review simulated cases. Each team will record symptoms, identify the probable diagnosis, and prepare Siddha treatment protocols referencing classical texts. Emphasis will be on individualized, long-term care strategies including rehabilitation.

Students' Activities

Step 01 (First 60 Minutes): Under teacher guidance, students will evaluate simulated or real pediatric cases of *Baala Vaatham.* They will take case histories, perform Siddha diagnostic assessments *(Naadi, Envagai Thervu),* and classify the condition into subtypes. Students will also identify differential diagnoses to distinguish *Baala Vaatham* from other pediatric neurological disorders.

Step 02 (Next 60 Minutes): Students will develop Siddha management plans integrating internal formulations *(e.g., Karisalai Ilagam), Varmam* points, *Thokkanam* massage sequences, and yogic modules. They will simulate caregiver counseling, discuss prognosis, and outline long-term dietary and lifestyle support. Discussions will explore challenges in managing chronic or *Theerathu* types and propose integrative care models.

Assessment (Final 30 Minutes): Faculty will observe simulated patient interactions to assess diagnostic accuracy, Siddha treatment logic, and communication. DOPS will be conducted for *Varmam* and *Thokkanam* technique demonstration. A viva will evaluate student understanding of classical formulations, subtype management, and prognosis. Team presentations and case documentation will also be assessed.

Experiential learning Activity

Experiential-Learning 4.1 : Documentation and Diagnostic Compilation of Siddha Neuromuscular Disorders in Pediatrics

Total Duration of the Activities 4 Hours

Students will conduct an in-depth literature review of Siddha classical texts and verified secondary sources to document the etiology, clinical characteristics, classification, and diagnostic approaches (up to diagnosis only) of *Valippu Noi* (4 and 16 types), *Vali Noi* (7 types), *Piraveechu* (5 types), *Suzali* (4 types), and *Nadukkan* (7 types). They will consolidate their findings into a structured document for pediatric clinical reference.

Instructions to Students (First 15 Minutes) Teacher will explain the task: focus exclusively on Siddha classifications, clinical features, and diagnostic methods for *Valippu Noi, Vali Noi, Piraveechu, Suzali, and Nadukkan.* Students must not include treatment or preventive aspects. Primary *Siddha* texts must be prioritized for accuracy.

Students' Activities (210 Minutes)

Step 01 (First 70 Minutes) Students will perform a library-based review to gather detailed notes from Siddha classical texts on etiology, types, and primary classifications of the five disorders. They will individually extract information related to clinical characteristics and pathogenesis.

Step 02 (Second 70 Minutes) Students will document the signs, symptoms, and diagnostic approaches *(Naadi, Envagai Thervu)* for each condition. Information must be

organized disease-wise to ensure clarity and usability.
Step 03 (Third 70 Minutes) Students will compile the notes into a structured reference document for pediatric Siddha diagnosis. Each student will prepare a brief summary of one condition for group discussion or viva, emphasizing clinical diagnostic features.
Assessment (Final 15 Minutes) Teacher will assess students through the submitted compilation for accuracy, completeness, and structured organization. A short viva will be conducted to evaluate their understanding of Siddha classification and diagnosis. Peer review and self-assessment will validate the quality of compiled materials.

Experiential-Learning 4.2 : Clinical Case-Based Management of Pediatric Neuromuscular Disorders

Total Duration of the Activities 3 Hours
Students will participate in clinical observation and practical sessions, reviewing at least five pediatric cases diagnosed with *Valippu Noi, Vali Noi, Suzali, Nadukkan, and Piraveechu*. Faculty will demonstrate internal and external therapies, including *Varmam* applications, individualized Siddha management protocols, and preventive strategies. Students will document therapies, assist in therapy planning, and analyze the effectiveness of interventions.
Instructions to Students (First 20 Minutes) Teacher will introduce the objectives of observing clinical management for pediatric neuromuscular cases. Students must focus on diagnosis, treatment regimen, *Varmam* points applied, preventive care, and rehabilitation strategies. Students are expected to maintain detailed notes for each observed case.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe the clinical management of five pediatric cases. For each case, students must document the diagnosis, Siddha internal medicines *(e.g., Chooranam, Ilagam),* external therapies *(e.g., Thokkanam, Kattu), Varmam* points, and preventive and rehabilitative measures utilized.
Step 02 (Second 70 Minutes) Students will analyze therapeutic interventions, assist in case discussions with faculty, and understand how holistic Siddha management strategies are personalized for functional recovery. Students will reflect on long-term management and preventive approaches for neuromuscular disorders.
Assessment (Final 20 Minutes) Teacher will assess students through case-based assessment and review of logbook entries for all five cases. Direct observation will evaluate students' understanding of Siddha *therapies, Varmam application,* rehabilitation strategies, and preventive care planning. Students must submit a brief summary report for each case.

Experiential-Learning 4.3 : Documentation and Diagnostic Compilation of *Soolai, Moorchai, and Baalar Mayakkam*

Total Duration of the Activities 4 Hours
Students will conduct a structured review of Siddha classical texts and clinical records to analyze the characteristics, classification, etiopathogenesis, and diagnostic methods for *Soolai* (6 types), *Moorchai* (8 types), and *Baalar Mayakkam* (4 types). They will prepare structured classification charts, diagnostic flowcharts, and case documentation templates, focusing on accurate clinical identification, Siddha diagnostic methods *(Envagai Thervu, Naadi),* and differential diagnosis without including treatment or prevention components.
Instructions to Students (First 30 Minutes) Teacher will explain the objective of compiling detailed diagnostic information about *Soolai, Moorchai, and Baalar Mayakkam* using *Siddha* literature and clinical data. Students must focus on classification, etiology, clinical features, *Envagai Thervu*-based diagnosis, and *Naadi* interpretation.

Students must create structured charts and flow diagrams for diagnostic reference.
Students' Activities (Next 180 Minutes - 60 mins + 60 mins + 60 mins)
Step 01 (First 60 Minutes) Students will review Siddha classical texts to extract and document the six types of *Soolai*, noting etiology, clinical signs, and diagnostic indicators. They will create a structured classification chart highlighting key diagnostic features.
Step 02 (Second 60 Minutes) Students will analyze and document the eight types of *Moorchai* and four types of *Baalar Mayakkam.* They will focus on clinical signs, *Naadi* patterns, and differential diagnostic features, creating diagnostic flowcharts for each condition.
Step 03 (Third 60 Minutes) Students will compile a detailed diagnostic report consolidating findings for *Soolai, Moorchai, and Baalar Mayakkam.* The report will emphasize early detection, prognostic signs, and practical clinical diagnostic approaches based on Siddha methods.
Assessment (Final 30 Minutes) Teacher will assess the students' submitted diagnostic compilations through critical reading paper evaluation and theory case study analysis. Self-assessment exercises will help students reflect on the accuracy, depth, and practical relevance of their documentation.

Experiential-Learning 4.4 : Clinical Management of Pediatric *Soolai, Moorchai, and Baalar Mayakkam*

Total Duration of the Activities 3 Hours
Students will actively participate in clinical management rounds for pediatric patients diagnosed with *Soolai, Moorchai, or Baalar Mayakkam.* They will observe, assist, and document the application of Siddha internal and external therapies, Varmam techniques, preventive care strategies *(Pathiyam, Kayakarpam),* and rehabilitation planning. Students will develop an integrated understanding of holistic Siddha pediatric care through direct clinical experience.
Instructions to Students (First 20 Minutes) Teacher will explain clinical features, diagnostic approaches, and Siddha therapeutic principles for managing *Soolai, Moorchai,* and *Baalar Mayakkam.* Students must be prepared to observe clinical management, assist in therapy sessions, and document the clinical responses and preventive care practices.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe and record diagnosis and internal Siddha treatment protocols administered for at least 2–3 pediatric cases. They will document medicines used *(e.g., Chooranam, Ilagam),* dosage patterns, patient response, and symptomatic changes noted during therapy.
Step 02 (Second 70 Minutes) Students will assist in administering external therapies such as *Thokkanam, Kattu, and Varmam therapy for Soolai, Baalar Mayakkam and Moorchai cases.* They will record techniques, patient comfort, rehabilitation strategies, and preventive care plans including *Pathiyam* and lifestyle modifications. Group discussion will consolidate learnings.
Assessment (Final 20 Minutes) Teacher will assess students through Practical Viva and Case-Based Assessment, evaluating their understanding of *Siddha* treatment principles, accuracy in clinical documentation, ability to assist therapies correctly, and integration of preventive and rehabilitative strategies in pediatric practice.

Experiential-Learning 4.5 : Documentation and Diagnostic Compilation of Pediatric *Vaatham* Disorders.

Total Duration of the Activities 3 Hours
Students will engage in a structured documentation session reviewing classical Siddha texts and correlating them with contemporary pediatric clinical signs. The activity

focuses on *Sura Vaatham, Akkini Vaatham, Mel Moochu Vaatham, and Athisaara Vaatham.* Students will extract causes, classifications, diagnostic features, and differential points, utilizing *Siddha* diagnostic tools like *Naadi, Envagai Thervu, and Uyir Thathukkal* assessments. They will compile a comparative diagnostic table for future clinical reference, maintaining ethical documentation practices.
Instructions to Students (First 20 Minutes) Teacher will orient students on Siddha diagnostic principles, important focus areas for each *Vaatham* disorder, source references, and the expected structure of the documentation. Students must ensure differentiation of overlapping clinical conditions, emphasizing diagnostic clarity and Siddha traditional methods.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will document the characteristics, causes, and classifications of *Sura Vaatham* and *Akkini Vaatham* from *Siddha* classical sources. They will correlate classical descriptions with observed clinical features in pediatric OPD/IPD settings.
Step 02 (Second 70 Minutes) Students will analyze the overlapping features and differentiators between *Sura Vaatham* and *Akkini Vaatham* using *Siddha* diagnostic parameters *(Envagai Thervu, Naadi).* Additionally, they will compile the diagnostic signs and stages of *Mel Moochu Vaatham.*
Assessment (Final 20 Minutes) Students will submit their compiled documentation, including a comparative diagnostic table. Faculty will assess students through a theory case study discussion and review of submitted work. Focus will be on the accuracy of Siddha classifications, depth of diagnostic analysis, and systematic documentation.

Experiential-Learning 4.6 : Clinical Exposure and Siddha Management of Pediatric *Vaatham* Disorders

Total Duration of the Activities 3 Hours
Students will be posted in pediatric OPD/IPD under direct supervision, where they will observe and assist in managing at least five pediatric cases diagnosed with *Sura Vaatham, Akkini Vaatham, Mel Moochu Vaatham,* and *Athisaara Vaatham.* They will engage in case identification, clinical examination, application of Siddha internal and external therapies, preventive care planning *(Pathiyam,* seasonal regimens), and rehabilitation strategy formulation. Reflection on treatment outcomes and holistic Siddha care integration will be emphasized.
Instructions to Students (First 20 Minutes) Teacher will brief students on clinical objectives, Siddha diagnostic focus *(Naadi, Envagai Thervu),* history-taking methods, and individualized treatment approaches. Students must be attentive in documenting clinical signs, therapeutic interventions, and preventive and rehabilitative plans for pediatric *Vaatham* disorders.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe clinical signs, document case findings, diagnose based on Siddha principles, and identify *mukkutram* imbalances. They will assist in administering internal medicines and external therapies (such as *Thokkanam, Varmam application*) in at least three pediatric cases.
Step 02 (Second 70 Minutes) Students will document preventive strategies including *Pathiyam* and seasonal regimen plans. They will analyze treatment outcomes, reflect on patient responses, and prepare notes for group discussion on holistic Siddha pediatric management integrating rehabilitation strategies.
Assessment (Final 20 Minutes) Teacher will conduct Practical Viva for each case managed, review students' Log Book entries, and assess through Direct Observation of Procedural Skills (DOPS) focusing on clinical reasoning, therapeutic application, documentation quality, and integration of preventive Siddha *care*.

Experiential-Learning 4.7 : Diagnostic Analysis and Classification of *Baala Vaatham* in Pediatrics

Total Duration of the Activities 3 Hours

Students will study the classification of *Baala Vaatham* into 8 major types and 40 subtypes by referring to Siddha classical texts and clinical documentation. They will document the clinical features, causes, and prognostic indicators for each type. Using Siddha diagnostic tools such as *Naadi* and *Envagai Thervu*, they will engage in diagnostic simulations and analyze case scenarios to differentiate *Baala Vaatham* types systematically, without focusing on treatment or preventive strategies.

Instructions to Students (First 20 Minutes) Teacher will introduce the classification system of *Baala Vaatham*, clinical diagnostic methods, and the importance of accurate identification of signs and symptoms. Students must carefully plan their documentation and diagnostic analysis based on Siddha traditional frameworks.

Students' Activities (140 Minutes)

Step 01 (First 70 Minutes) Students will document all 8 major types and 40 subtypes of *Baala Vaatham* using Siddha classical references. They will create a structured classification and symptomatology reference chart, highlighting key diagnostic features and causes for each type.

Step 02 (Second 70 Minutes) Students will participate in simulated diagnostic sessions applying *Naadi and Envagai Thervu* principles to pediatric case scenarios. They will record diagnostic findings, analyze causes and prognoses, and summarize case interpretations for peer discussion.

Assessment (Final 20 Minutes) Teacher will assess students through a Practical Viva focusing on their understanding of *Baala Vaatham* classification and diagnostic features. Students will submit compilations and case-based assessments documenting their classification charts, simulated diagnostic findings, and prognosis analysis for pediatric Siddha *practice.*

Experiential-Learning 4.8 : Siddha Treatment Approaches for Managing *Baala Vaatham*

Total Duration of the Activities 3 Hours

Students will participate in hands-on training sessions involving preparation of Siddha internal formulations, and practice of external therapies like *Varmam* and *Thokkanam* for *Baala Vaatham* types. Under supervision, they will simulate therapeutic procedures on models, observe dietary planning, and understand *Yoga* interventions for pediatric motor and cognitive improvement. They will integrate *Siddha* therapeutic components into a comprehensive management plan through case-based learning.

Instructions to Students (First 20 Minutes) Teacher will introduce students to key internal medicines, *Varmam and Thokkanam* protocols, and dietary recommendations for *Baala Vaatham.* Students must pay attention to correct therapeutic techniques, clinical indications, and holistic Siddha management strategies during the session.

Students' Activities (140 Minutes)

Step 01 (First 70 Minutes) Students will practice the preparation of Siddha internal formulations suitable for pediatric patients. They will simulate the administration of these formulations and practice external therapies, applying *Varmam* points and *Thokkanam* techniques to enhance motor and neurological function in children under supervision.

Step 02 (Second 70 Minutes) Students will develop comprehensive Siddha management plans for assigned case scenarios. Plans must integrate *Yoga* practices, appropriate *Varmam* therapy, tailored diet plans *(Pathiyam)*, and internal herbal therapies based on *Baala Vaatham* classifications and Siddha principles.

Assessment (Final 20 Minutes) Teacher will assess students through checklist-based evaluation and direct observation of their skills in formulation preparation, therapy simulation, and management planning. Practical viva and case-based assessments will evaluate understanding, technique accuracy, safety, and application of holistic Siddha pediatric neurology management.

Modular Assessment

Assessment method	Hour
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 6C. **Section A** - 25 Marks - ABQ/ LAQ/SAQ & **Section - B** This 25-mark modular assessment evaluates student competence through structured clinical stations and an online quiz. It focuses on pediatric neuro-functional disorders like *Valippu Noi, Vali Noi, Suzhali, Nadukkan, Puraveechu, Soolai, Moorchai, Baalar Mayakkam, Sura Vaatham, Akkini Vaatham, Mel Moochu Vaatham Athisaara Vaatham and Baala Vaatham* . OSCE assesses hands-on diagnostic interpretation and patient explanation. The quiz covers classifications, Siddha diagnostic tools, symptom features, and therapeutic insights. Instructions to Students: Students will rotate through three OSCE stations focusing on case-based analysis, *Siddha* diagnostic application, and patient communication. In addition, complete an online quiz with MCQs or short-answer questions covering the module content. No books or notes allowed. Time and response accuracy will be considered in scoring. Instructions to Teachers: Prepare three OSCE stations: one on classification/diagnostic task, another on Siddha therapy planning, and one patient communication-based station. Develop an online quiz of 10 objective questions aligned with M04.U1 and M04.U4 content. Use rubrics/checklists to assess performance. Emphasize practical accuracy, logical reasoning, and Siddha-based clinical clarity. Mark Distribution : The total marks for this assessment are 25. OSCE Station 1 – Siddha Diagnostic Tools/Classification carries 7 marks, Station 2 – Therapeutic Planning (Internal/External) is allotted 6 marks, Station 3 – Communication and Prognosis holds 5 marks, and the Online Quiz (MCQs/short answers) carries the remaining 7 marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	4

Semester No : 5

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/Kno	3G Teaching Learning Methods

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Module 5 : ????????????? ????, ???, ????, ?????? ??????? ?????? ??????? - Kuzhanthaikalin Eeral, Kan, Kaathu, Mooku Matrum Thondai Noigal (Pediatric Disorders of Liver, Spleen, Eye, Ear, Nose, Tongue and Throat)

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

Describe classifications and signs of *Paandu, Sobai, and Kaamalai.*
Differentiate hepatic symptoms in *Karal Sura Rogam and Karal Rogam.*
Apply Siddha treatments for *Ullu Rogam and Baala Pitham* conditions.
Analyze symptom variations in *Manjal Noi* and *Pitha*-based disorders.
Interpret clinical features of *Vaatha, Pitha, and Kabha Singu Noi*.
Evaluate classical Siddha therapies using case-based pediatric examples..

M 5 Unit 1 ??????, ????, ?????? ???? ??????? ?????? - Paandu, Sobai, Manjal Noi and Kaamalai

5.1.1 Classification of *Paandu, Sobai, Manjal Noi, and Kaamalai:* Subtypes of *Paandu* (5), *Sobai* (5), *Baalar Manjal Noi* (9/1), and *Kaamalai* (7) with *thodam* basis, clinical characteristics and diagnostic importance in Siddha pediatrics. 5.1.2 Symptom Comparison in *Paandu* Types with Pale Skin Presentation: Clinical variations in pallor among *Paandu* types linked to disease progression and underlying *kutram*-specific pathophysiology. 5.1.3 Symptom Analysis in *Sobai* Types: Distinctive clinical features such as swelling, pain, systemic signs, and functional impairments associated with each type of *Sobai* in children. 5.1.4 *Manjal Noi and Kaamalai:* Comparative analysis of symptoms, disease course and *thodam* involvement in various forms of *Manjal Noi and Kaamalai* related disorders. 5.1.5 Siddha Treatments for *Paandu, Sobai, and Kaamalai:* Therapeutic guidelines using internal medicines, *Patiyam* and supportive care based on classical Siddha *texts* for effective pediatric management.

References: 3,58,60,65,85,87,91,117

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO8	Document Siddha classifications, causes, and diagnostic criteria for pediatric	4	Experiential-	CK	Does	IBL,LS,S

	hematological and hepatic disorders		Learning 5.1			DL,TPW, PAL
CO1,CO3,CO5	Apply Siddha treatments and dietary principles in managing Pediatric *Paandu, Sobai, and Kaamalai*	3	Experiential-Learning 5.2	CAP	Does	TBL,SDL ,D-BED,CBL
CO1,CO4,CO5	Describe *Paandu, Sobai, Manjal Noi, Kaamalai* types with origin and *Mukkutram* roles.	1	Lecture	CC	Knows-how	L,DIS,L&GD
CO1,CO4,CO5	Describe *Paandu, Sobai* symptoms with severity, pathology, and pediatric anemia diagnosis.	1	Lecture	CAN	Knows-how	L,DIS,L&GD
CO1,CO4,CO5	Discuss Manjal Noi, Kaamalai symptoms, pathogenesis, and Siddha treatment for jaundice.	1	Lecture	CC	Knows-how	L,L&GD, DIS
CO3,CO5,CO6	Adapt clinical skills to identify types and management of *Paandu and Sobai*	3	Practical Training 5.1	PSY-ADT	Shows-how	C_L,SIM, CBL
CO3,CO6	Analyze *Kamalai/Manjal Noi* subtypes and plan Siddha treatments using diagnostic and lab-based insights.	3	Practical Training 5.2	CAN	Shows-how	LRI,CBL
CO3,CO6	Demonstrate guided skills to assess and treat *Ullu Rogam* types.	2	Practical Training 5.3	PSY-GUD	Shows-how	IBL,RLE
CO3,CO6	Adapt diagnostic and therapeutic skills to manage pediatric liver conditions.	3	Practical Training 5.4	PSY-ADT	Knows-how	DIS,RLE, IBL
CO4,CO6	Classify and manage *Baala Pitham* based on symptoms and Siddha principles.	3	Practical Training 5.5	PSY-GUD	Shows-how	CBL,PAL ,D
CO3,CO6	Analyze symptom variations of *Pitham noigal* and formulate diagnostic insights.	3	Practical Training 5.6	CAN	Knows-how	PAL,IBL, L_VC,CBL

M 5 Unit 2 ????? ?????, ????? ??? ????? ??????? ????? ????? - Ullu Rogam, Kaaral Sura Rogam and Kaaral Rogam

5.2.1 Classification of *Ullu Rogam, Karal Sura Rogam and Karal Rogam:* Subtypes of *Ullu Rogam* (5), *Karal Sura Rogam* (4/6), and *Karal Rogam* (14) with focus on pathogenesis, humour classification and pediatric relevance. 5.2.2 Comparative Symptoms of *Karal Sura Rogam and Karal Rogam*: Symptom analysis and differentiation between *Karal Sura Rogam and Karal Rogam* based on clinical signs and Siddha diagnostic principles. 5.2.3 Treatment Approaches for *Ullu Rogam in* Siddha: Management strategies using internal medicines, external therapies and *Patiyam*. 5.2.4 Siddha Treatments for *Karal Rogam and Karal Sura Rogam:* Classical Siddha formulations, dosage patterns and therapeutic procedures for liver-based conditions in children. 5.2.5 Preventive Measures and Case-Based Learning: Preventive guidelines, seasonal care, dietary planning, and pediatric case examples to enhance clinical proficiency.

References: 84,88

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Perform Siddha clinical examination and prepare traditional formulations for *Karal Sura Rogam and Karal Rogam*	3	Experiential-Learning 5.3	PSY-GUD	Does	CBL,D-BED,RLE
CO1,CO3,CO5	Perform Siddha diagnostic and therapeutic management for *Ullu Rogam*	3	Experiential-Learning 5.4	PSY-GUD	Does	TPW,CBL,RLE,D-BED
CO1,CO4,CO5	Examine Ullu, Karal Sura, Karal Rogam types and pediatric clinical relevance.	1	Lecture	CAN	Knows-how	L,L&GD, DIS
CO1,CO4,CO5	Differentiate Karal Sura and Karal Rogam symptoms for accurate pediatric diagnosis.	1	Lecture	CAN	Know	DIS,L&GD
CO1,CO4,CO5	Discuss Siddha management of Ullu, Karal, Karal Sura Rogam in pediatric care.	1	Lecture	CC	Knows-how	L,L&GD, DIS

M 5 Unit 3 ?????????? - Baala Pitham

5.3.1 Classification of *Baala Pitham:* Eleven and twelve types of *Baala Pitham* with focus on pathogenesis, clinical presentations, and Siddha diagnostic frameworks in pediatric conditions. 5.3.2 Siddha Management and Therapeutics for *Baala Pitham:* Classical internal medicines, dietary protocols, and rejuvenative Siddha therapies for effective treatment of *Baala Pitham.* 5.3.3 Comparative Symptom Patterns in *Pitha* Disorders: Differential symptom expression in pediatric

Pitha-related conditions enabling clinical distinction among subtypes. 5.3.4 Case-Based Discussions on Pediatric *Pitha Noigal:* Interactive analysis of pediatric cases with *Baala Pitham* for application of Siddha diagnostics, treatment planning, and outcome evaluation.

References: 82,88

3A	3B	3C	3D	3E	3F	3G
CO2,CO4,CO7	Recall and document classical classifications and clinical features of *Baala Pitham.*	3	Experiential-Learning 5.5	CK	Does	C_L,TBL, LS
CO1,CO3,CO6	Apply diagnostic and therapeutic principles of Siddha to manage *Baala Pitham.*	3	Experiential-Learning 5.6	CAP	Does	IBL,CBL, D-BED,PSM
CO1,CO4,CO5	Examine *Baala Pitham* types, symptoms, pathophysiology, and Siddha diagnostic criteria.	1	Lecture	CAN	Knows-how	L&GD,L, DIS
CO1,CO4,CO5	Analyze Baala Pitham management with medicines, diet, rejuvenation, and pediatric case discussions.	1	Lecture	CAN	Knows-how	DIS,LS,L &GD

M 5 Unit 4 ?????????? - Singu Noi

5.4.1 Definition and Classification of *Singu Noi:* Definition, three types of *Singu Noi* classified based on *Vaatha*, *Pitha*, and *Kabha* predominance with relevance to pediatric tongue disorders. 5.4.2 *Vaatha Singu Noi:* Presentation of dryness, stiffness, and movement limitation in *Vaatha Singu* with Siddha diagnostic indicators. 5.4.3 *Pitha Singu Noi:* Inflammatory changes, ulcers, and erythema characteristic of *Pitha Singu*, highlighting progression and complications. 5.4.4 *Kabha Singu Noi*: Mucosal coating, heaviness, and swelling seen in *Kabha Singu* with emphasis on differentiation and *thodam* analysis. 5.4.5 Siddha Management of Pediatric *Singu Noi:* Internal and external treatment approaches including gargles etc.,with evaluation of treatment outcomes.

References: 83,88

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO6	Describe the clinical types of *Singu Noi* and their Siddha *treatments.*	4	Experiential-Learning 5.7	CC	Does	IBL,SDL, PL,CBL

CO2,CO3,CO6	Analyze *Singu Noi* types and identify clinical features for effective Siddha-based diagnosis and care.	3	Experiential-Learning 5.8	CAN	Does	GBL,PAL,SDL,DIS
CO1,CO4,CO5	Identify three *Singu Noi* types, pediatric symptoms, and *Thodam*-based clinical features.	1	Lecture	CAN	Knows-how	L,DIS,L&GD
CO1,CO4,CO5	Analyze Siddha treatments for Singu Noi and tongue disorders in pediatrics.	1	Lecture	CAN	Knows-how	L&GD,L,DIS
CO3,CO6	Identify and classify *Singu Noi* types through clinical tongue examination.	3	Practical Training 5.7	PSY-GUD	Shows-how	CBL,D-BED,PAL

Practical Training Activity

Practical Training 5.1 : Siddha Clinical Diagnosis and Management of Pediatric *Paandu Noi and Sobai*

Total Duration of the Activities: 3 Hours

This practical introduces students to the clinical recognition and Siddha-based management of *Paandu Noi* (anemia) and *Sobai* (edema) in pediatric patients. Through real or simulated case scenarios, students will observe signs like pallor, puffiness, and fatigue. They will use Siddha diagnostics including *Naadi* and *Ennvagai Thervu* to classify disease subtypes. Internal and external treatment strategies will be developed using classical Siddha texts, with an emphasis on thodam-specific management, herbal formulations, and dietary protocols (Pathiyam).

Instructions to Students (First 30 Minutes): The teacher will guide students in identifying visible signs of anemia and edema in pediatric cases, such as pale conjunctiva and swelling. Siddha diagnostic tools will be reviewed with emphasis on *Noi Varum Vazhi.* Students will receive guidelines to classify the conditions into thodam types and select appropriate remedies. They must prepare treatment charts for presentation with justification from Siddha references.

Students' Activities (Next 120 Minutes):

Step – 01 (First 60 Minutes): Students will analyze case scenarios, applying *Naadi and Ennvagai Thervu* to identify thodam imbalances. They will classify *Paandu* and *Sobai* into types and chart out their pathophysiology and symptomatology. Individual teams will begin drafting treatment protocols including internal herbal remedies and external therapies.

Step – 02 (Next 60 Minutes): Teams will finalize treatment charts detailing internal medicines, lepas, tailams, and Paatiyam specific to their diagnosed subtype. They will prepare a logical clinical pathway linking symptoms to diagnosis and therapy. Each team will present their charts and clinical reasoning, defending their choices with references from Siddha literature.

Assessment Methods (Final 30 Minutes): The teacher will evaluate the diagnostic logic, completeness of treatment charts, and clinical justification in each group's presentation. Students will undergo a viva on disease classification, Siddha diagnostic tools, and evidence-based treatment strategies for *Paandu Noi and Sobai.* Peer feedback will be encouraged during the session.

Practical Training 5.2 : Clinical Diagnosis and Management of Pediatric *Baalar Manjal Noi and Kaamalai*

Total Duration of the Activity: 3 Hours
This session equips students with skills to clinically identify Baalar Manjal Noi and Kaamalai types through integrated Siddha and modern diagnostics. Using simulated pediatric cases, students will assess symptoms like yellowish discoloration, interpret liver function reports, and apply Siddha diagnostic tools such as Naadi, Naa, and Kan. They will create visual posters summarizing classification, diagnostic parameters, and Siddha treatment protocols including internal medicines, external therapies like Manjal Patru, and dietary regimen (Paatiyam).
Instructions to Students (First 30 Minutes): Teacher will introduce types of Baalar Manjal Noi and Kaamalai with Siddha classification, clinical features, and humor-based origin. Students will be guided through symptom analysis, interpretation of lab reports (e.g., serum bilirubin, LFT), and use of Siddha diagnostic tools. Teachers will outline poster requirements and clinical puzzle formats.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will analyze simulated pediatric jaundice cases, identifying clinical signs, Naadi types, and interpreting LFT reports. Each group will prepare a draft diagnostic summary, humor classification, and propose internal Siddha medicines, relevant external therapies (e.g., Manjal Patru), and suitable Pathiyam.
Step – 02 (Next 60 Minutes): Students will finalize and present a poster highlighting disease classification, diagnostic indicators, and treatment. Teams will solve clinical puzzles distinguishing different subtypes of Manjal Noi and Kaamalai. Groups will defend their poster justifications using classical Siddha texts and symptom correlations.
Assessment Methods (Final 30 Minutes): Teacher will assess poster content for diagnostic accuracy, clarity of Siddha treatment application, and student understanding of disease classification. Case puzzle responses will be reviewed. A viva will evaluate student knowledge on humor-based diagnosis and Siddha management of Baalar Manjal Noi and Kaamalai.

Practical Training 5.3 : Clinical Diagnosis and *Siddha* Management of Pediatric *Ullu Rogam*

Total Duration of the Activities: 2 Hours
This practical introduces students to *Ullu Rogam* in pediatric patients and its *Siddha* classification into five types. Students will observe symptoms such as dysuria, polyuria, and hematuria and practice clinical diagnosis using *Naadi and Ennvagai Thervugal.* They will prepare treatment plans using classical *Siddha remedies*, external therapies, and preventive guidance through visual presentation.
Instructions to the Students (First 20 Minutes): Attend the demonstration attentively and document urinary symptoms like pain, frequency, or discoloration. Refer *Siddha* literature to understand *kutram* involvement and treatment logic. Take detailed notes on classical internal formulations, oil therapies, and diet rules. Prepare to create a visual summary that maps clinical observations with *Siddha* therapeutic applications.
Step 01 (First 40 Minutes): Students will take a complete history from a simulated pediatric case presenting with urinary complaints. They will identify dominant symptoms, classify the condition under the five types of *Ullu Rogam* using *Siddha* nosology, and record findings. Diagnosis will be supported with humor analysis, tongue and eye signs, and *Naadi* examination.
Step 02 (Next 40 Minutes): Students will work in groups to prepare a poster depicting the classification of *Ullu Rogam*. It will include clinical features, *kutram* correlation, *Siddha* diagnostic tools, internal/external treatments, and dietary advice. Each team will present their poster to peers and explain their diagnostic reasoning and

therapeutic suggestions for pediatric urinary care.
Assessment (Final 20 Minutes): Students will be assessed through direct observation of case-taking and diagnosis. Posters will be reviewed for diagnostic accuracy, clarity of presentation, and *Siddha* alignment. Scenario-based questions will test students' ability to differentiate conditions, apply *Siddha principles*, and recommend personalized treatments for pediatric urinary disorders with logical justification.

Practical Training 5.4 : Clinical Assessment, Differentiation, and Siddha Management of *Karal Sura Rogam* and *Karal Rogam*

Total Duration of the Activities: 3 Hours
This session introduces students to Siddha classifications of *Karal Sura Rogam* (4–6 types of liver-associated fevers) and *Karal Rogam* (14 liver pathologies). Through real or simulated pediatric cases, students will learn to identify overlapping features like jaundice, fever, hepatomegaly, fatigue, and digestive disturbances. Emphasis will be on differentiating these conditions based on humoural involvement *(Vali, Azhal, Iyyam),* progression, and *Siddha* pathology. Treatment protocols using internal remedies like *Karisalai Kudineer,* external therapies, and seasonal regimens will be discussed. Students will also engage in visual representation and team-based learning to consolidate clinical reasoning.
Instructions to the Students (First 30 Minutes): Teacher will guide students through the classification, symptoms, and diagnostic features of *Karal Sura Rogam and Karal Rogam.* Students will observe clinical or simulated liver disease cases and document signs such as jaundice, fever, abdominal swelling, fatigue, and appetite loss.
Using Siddha diagnostic tools, students will classify the condition and prepare to compare disease characteristics, *kuttram* involvement, and Siddha therapeutic interventions.
Students' Activities
Step 01 (First 60 Minutes): Students will take histories and perform assessments of pediatric cases showing hepatic symptoms. They will apply Siddha diagnostic tools such as *Naadi, Malam, and Naa* and classify each case as either *Karal Sura Rogam* or a specific subtype of *Karal Rogam.* They will identify *kuttram* predominance, note symptom severity and progression, and formulate Siddha-based management strategies involving internal medicines *(e.g., Karisalai Kudineer, Thalisathi Mathirai),* external therapies, and *Paatiyam.*
Step 02 (Next 60 Minutes): Students will work in groups to create a comparative poster on *Karal Sura Rogam and Karal Rogam,* detailing symptoms, *kuttram* involvement, and *Siddha* treatments. They will justify internal and external therapies, include *pathiyam* and preventive care, and present their findings through peer discussion and simulated caregiver counseling.
Assessment (Final 30 Minutes): Teacher will assess students based on their diagnostic reasoning, treatment selection, and chart clarity. Observation will include interaction quality during simulated counseling. A scenario-based discussion and short viva will test their ability to differentiate conditions, apply Siddha principles, and recommend appropriate formulations, dietary adjustments, and preventive strategies for pediatric liver care.

Practical Training 5.5 : Clinical Diagnosis and Management of *Baala Pitham* Subtypes in Children

Total Duration of the Activities: 3 Hours
This clinical practical focuses on the Siddha classification of the 11 and 12 types of *Baala Pitham,* emphasizing clinical recognition, *thodam* pathophysiology, and therapeutic response. Students will assess pediatric patients (real or simulated) presenting with *Pitham*-predominant signs like yellow discoloration, vomiting, irritability,

and fever. They will apply traditional diagnostic methods such as *Naadi, Naa, and Malam* examination to identify subtypes, select corresponding Siddha medicines, and simulate dietary and caregiver counseling strategies.
Instructions to the Students (First 30 Minutes): Teacher will guide students through the 11 and 12 types of *Baala Pitham,* explaining each subtype's diagnostic markers and underlying *Pitha kuttram* features. Students will observe real or simulated cases, noting classical signs such as heat, restlessness, and yellow discoloration. They are expected to classify each case, identify triggering factors (e.g., diet, season), and prepare a Siddha-based treatment plan for peer discussion.
Students' Activities
Step 01 (First 60 Minutes): Students will assess 2–3 pediatric cases with *Baala Pitham* features. They will perform detailed history-taking, focusing on symptoms like vomiting, fever, irritability, and yellowish skin. Using Siddha diagnostic criteria *(Naadi, Naa, Malam),* they will classify the *Baala Pitham* subtype, assess its severity, and identify environmental/dietary aggravating factors. They will also begin selecting internal medications and dietary protocols based on Siddha literature.
Step 02 (Next 60 Minutes): Students will prepare a comprehensive clinical chart mapping each *Baala Pitham* subtype to its specific symptoms, diagnostic features, and Siddha treatment. They will simulate caregiver counseling by explaining *pathiyam* (cooling diets), *thodam* balancing strategies, and symptom monitoring tips. Peer groups will review, critique, and refine each presentation, emphasizing clarity, cultural appropriateness, and clinical relevance.
Assessment (Final 30 Minutes): Teacher will conduct a practical viva focusing on diagnostic reasoning, treatment planning, and matching Siddha formulations to clinical symptoms. Observation checklists will be used during history-taking, diagnosis, and simulated counseling to assess skill proficiency and communication effectiveness. Student-prepared charts will be evaluated for completeness, alignment with classical Siddha texts, and clarity of information presentation.

Practical Training 5.6 : Comparative Clinical Assessment and Siddha Management of *Baala Pitham* with Edema and Ascites

Total Duration of the Activities: 3 Hours
This practical session introduces students to the Siddha understanding and classification of *Baala Pitham* conditions presenting with edema and ascites in children. Students will analyze clinical signs such as ankle swelling, abdominal distension, skin discoloration, and excessive thirst. Simulated scenarios will guide the identification of humor involvement and subtype classification. Through collaborative chart-making and discussion, students will compare types of *Baala Pitham,* understand variations in symptomatology, and develop Siddha-based theoretical management plans.
Instructions to Students (First 30 Minutes): Teacher will provide an overview of *Baala Pitham* and its subtypes manifesting with edema and ascites. Students will be guided to identify clinical signs such as swelling patterns, ascitic fluid behavior, and heat-associated symptom expressions. They will review symptom comparison tables and participate in mock case walk-throughs. Emphasis will be placed on constructing comparative charts and preparing for case-based discussion.
Students' Activities
Step 01 (First 60 Minutes): Students will work individually or in small groups to review 2–3 pediatric case scenarios exhibiting symptoms like generalized swelling, abdominal distension, skin discoloration, and thirst. They will use Siddha diagnostic criteria to classify the specific subtype of *Baala Pitham,* analyze *thodam* predominance, and interpret the disease progression using classical nosological mapping.
Step 02 (Next 60 Minutes): Students will collaboratively construct comparative charts illustrating overlapping and distinguishing clinical features among different *Baala Pitham* types. Each group will then present their comparative analysis, explaining symptom patterns, humor associations, and proposing theoretical Siddha treatment strategies (including internal remedies, *pathiyam,* and external therapies) tailored to the case scenario.

Assessment (Final 30 Minutes): Teacher will assess the quality and accuracy of the comparative charts, participation in case-based peer discussions, and clarity of diagnostic reasoning. A short viva will be conducted to evaluate student understanding of differential diagnosis and Siddha-based clinical reasoning for *Pitha* disorders with edema and ascites.

Practical Training 5.7 : Clinical Diagnosis and Siddha Management of Pediatric *Singu Noi*

Total Duration of the Activities: 3 Hours

This practical session introduces students to *Singu Noi* and its classification into *Vaatham, Pitham, and Kabham* types, along with their corresponding clinical characteristics. In a real or simulated pediatric clinical setting, students will observe and participate in detailed tongue examinations—assessing changes in color, movement, coating, and texture to detect underlying *thodam* imbalances. The session integrates hands-on diagnostic practice with group discussions to differentiate the conditions based on *Siddha* nosology. Students will then formulate therapeutic plans—including internal medications, gargles, and topical *poochu*—while also learning strategies for patient education on tongue hygiene and supportive care *(Pathiyam).*

Instructions to the Students (First 30 Minutes): Teacher will introduce the Siddha concepts and classification of *Singu Noi (Vaatham, Pitham, and Kabham types).* Students will observe demonstrations of tongue examinations in pediatric patients or simulations, and participate in case discussions. Emphasis is placed on taking detailed patient histories—including dietary habits, fever, digestive issues, and systemic symptoms—to correlate clinical observations with Siddha *thodam* patterns and support diagnostic and treatment planning.

Students' Activities

Step 01 (First 60 Minutes): Students will work in pairs (or small groups) to conduct detailed case history interviews and perform clinical tongue examinations. They will document key signs such as dryness, ulceration, color variations, movement disturbances, and coating patterns. Using the provided checklists and Siddha diagnostic tools *(Naadi, Envagai Thervu),* students will correlate these findings with the classifications of *Vaatham, Pitham, and Kabham Singu* types.

Step 02 (Next 60 Minutes): In small groups, students will review and discuss their documented findings. They will identify *thodam* imbalances and formulate individualized Siddha-based treatment plans. This planning includes selection of internal remedies (e.g., herbal formulations), mouth gargles or decoctions, and topical applications such as *poochu.* Additionally, students will practice patient education by role-playing a counseling session that explains tongue hygiene measures and supportive dietary interventions *(Pathiyam).*

Assessment Methods (Final 30 Minutes): Teacher will evaluate students by direct observation of their tongue examination technique and documentation accuracy. A structured scenario-based assessment (Mini-CEX) and oral viva will be used to test each student's ability to differentiate between *Singu* types, justify their diagnostic reasoning, and communicate the proposed treatment strategies clearly. Feedback will focus on practical proficiency, clinical reasoning, and effectiveness in caregiver communication.

Experiential learning Activity

Experiential-Learning 5.1 : Literary Documentation and Diagnostic Framework for *Paandu, Sobai, Baalar Manjal Noi, and Kaamalai*

Total Duration of the Activities 4 Hours

Students will participate in a guided library session using *Siddha* classical sources such as *Theraiyar, Agasthiyar, and Yugi Vaithiya Chinthamani*. They will extract literary content regarding *Paandu* (5 types), *Sobai* (5 types), *Baalar Manjal Noi* (9 types or 1 type depending on text), and *Kaamalai* (7 types). Documentation will include classification, etiology, *mukuttram* involvement, clinical signs, and diagnostic methods such as *Envagai Thervu and Naadi.* Students will compile a literary report and design Case Report Form (CRF) templates for future clinical application.
Instructions to Students (First 20 Minutes) Teacher will instruct students to access specific Siddha texts and focus on disease classification, etiological understanding, clinical features, and diagnostic techniques. Students must maintain authentic classical terminology and systematically prepare literary reports and CRF templates for each pediatric disorder.
Students' Activities (210 Minutes)
Step 01 (First 70 Minutes) Students will conduct a literary search on *Paandu, Sobai, Baalar Manjal Noi*, and *Kaamalai* across at least two Siddha classical texts. They will document classifications, causes, *mukuttram* involvements, and prominent symptoms, ensuring alignment with traditional diagnostic principles.
Step 02 (Second 70 Minutes) Students will organize findings into structured literary documentation. They will begin drafting Case Report Forms (CRFs) for each condition, highlighting disease definitions, diagnostic criteria *(Envagai Thervu, Naadi),* and symptomatology.
Step 03 (Third 70 Minutes) Students will finalize their CRFs and consolidate the literary compilation. They will cross-reference findings with modern pediatric terms where appropriate for clarity, ensuring the Siddha diagnostic framework remains intact. Students will prepare materials for peer review and faculty submission.
Assessment (Final 20 Minutes) Students will be assessed based on the completeness and accuracy of their literary documentation, quality and structure of CRF templates, and participation in peer review discussions. Evaluation will focus on comprehensiveness, adherence to Siddha sources, and clarity of diagnostic presentation.

Experiential-Learning 5.2 : Siddha Management Planning for Pediatric *Paandu, Sobai, and Kaamalai*

Total Duration of the Activities 3 Hours
Students will be divided into small clinical teams and provided with pediatric case profiles diagnosed with *Paandu* (anemia), *Sobai* (inflammatory hematological conditions), and *Kaamalai* (jaundice). Under faculty supervision, students will review Siddha classical formulations and dietary protocols, prepare a comprehensive Siddha treatment plan for each assigned case, document therapeutic interventions systematically, and present their plan for peer and faculty evaluation.
Instructions to Students (First 20 Minutes) Teacher will explain the clinical objectives, Siddha reference frameworks, and expectations for treatment plan preparation. Students must study case histories carefully, review classical texts for appropriate internal medicines, external *therapies, and Paatiyam*, and design holistic pediatric care plans based on Siddha principles.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will work in teams to review pediatric case data, study classical Siddha references, and develop comprehensive treatment plans. Plans must include internal medicine regimens *(e.g., Ilagam, Chooranam), external therapies (e.g., Thylam, Poochu),* dietary guidelines *(Pathiyam),* and a rationale based on classical indications.
Step 02 (Second 70 Minutes) Each group will present their treatment plan to faculty and peers, discussing formulation selections, safety considerations, and therapeutic rationale. Faculty and peer feedback will help refine understanding of practical Siddha application in pediatric hematological and hepatic care.
Assessment (Final 20 Minutes) Teacher will assess students based on the completeness and clinical appropriateness of treatment plans, accuracy in referencing Siddha

protocols, and ability to justify therapeutic decisions during the practical viva. Observation during case discussions and peer evaluations will also contribute to the final assessment.

Experiential-Learning 5.3 : Clinical Siddha Management of *Karal Sura Rogam* and *Karal Rogam*

Total Duration of the Activities 3 Hours
Students will be organized into clinical teams, each assigned pediatric cases diagnosed with *Karal Sura Rogam* (4 or 6 types of liver-induced fevers) or *Karal Rogam* (14 types of liver dysfunctions). They will perform clinical examination, identify classical Siddha symptoms using *Ennvagai Thervu and Naadi,* and document findings. Under faculty guidance, students will prepare Siddha *internal formulations* such as *Kudineer, Chooranam, and Thailam,* focusing on pediatric dosing, hygienic preparation, safe administration, and monitoring treatment outcomes.
Instructions to Students (First 20 Minutes) Teacher will brief students on the clinical signs and Siddha diagnostic approaches for *Karal Sura Rogam and Karal Rogam*. Instructions will cover steps in formulation preparation, pediatric dosage calculation, administration techniques, and key indicators for treatment outcome evaluation.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will conduct clinical examination of pediatric patients or simulated cases, applying *Ennvagai Thervu* and *Naadi* diagnostic methods. They will document signs and categorize liver-related disorders accurately. Under supervision, they will prepare selected Siddha *formulations* appropriate to the assigned conditions, emphasizing accuracy in dosage and hygiene.
Step 02 (Second 70 Minutes) Students will monitor treatment responses (real or simulated), document symptom improvements, and reflect on clinical progress. They will engage in case discussions, comparing real observations with expected classical outcomes, and analyze individualized Siddha therapeutic strategies for pediatric liver and urinary tract disorders.
Assessment (Final 20 Minutes) Teacher will assess students based on direct observation of their clinical assessment accuracy, practical skills in formulation preparation, and their ability to justify treatment plans during the practical viva. Case-based feedback will further guide final evaluation.

Experiential-Learning 5.4 : Siddha Clinical Management of Pediatric *Ullu Rogam*

Total Duration of the Activities 3 Hours
Students will be assigned pediatric cases diagnosed with *Ullu Rogam* (five types of urinary disorders). They will conduct clinical evaluations using Siddha diagnostic methods, prepare internal medicines, perform external therapies, and recommend dietary regimens *(Pathiyam)* under faculty supervision. Students will monitor therapeutic responses and systematically document outcomes using structured case report forms.
Instructions to Students (First 20 Minutes) Teacher will explain the classification and diagnostic criteria for *Ullu Rogam* and protocols for internal medicine preparation, external applications, and dietary planning in pediatric urinary disorders. Students must focus on safety, proper dosing, and treatment efficacy during therapy and documentation.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will perform clinical examinations, identify and document clinical signs using Siddha *diagnostic* tools like *Envagai Thervu and Naadi.*

Under supervision, they will prepare internal medicines *(e.g., Kudineer, Chooranam)* and perform external therapies ensuring pediatric safety and accuracy.
Step 02 (Second 70 Minutes) Students will recommend *Pathiyam* (dietary management) based on classical Siddha guidelines. They will monitor treatment progress (real or simulated), discuss clinical outcomes in peer groups, and reflect on the integration of holistic Siddha principles in pediatric urinary care.
Assessment (Final 20 Minutes) Teacher will assess students through direct observation of clinical skills, practical viva on Siddha therapeutic applications, and checklist-based evaluation of case documentation focusing on clinical accuracy, therapeutic safety, and treatment outcome monitoring.

Experiential-Learning 5.5 : Literary Documentation and Classification Analysis of *Baala Pitham*

Total Duration of the Activities 3 Hours
Students will perform a structured literary review from classical Siddha *texts* to extract, compare, and document the 11 and 12 types of *Baala Pitham.* They will analyze the clinical features, etiological factors, diagnostic criteria, and variations across different classical references. Group discussions will help clarify differences and align findings. Students will compile findings into a literary documentation portfolio including comparative charts, symptom profiles, and appropriate references to be used for clinical decision-making in pediatric *Siddha* practice.
Instructions to Students (First 20 Minutes) Teacher will guide students on the methodical approach to accessing Siddha classical texts, documenting classifications, and compiling comparative analyses. Emphasis will be placed on maintaining academic rigor and clinical relevance in literary interpretation for pediatric diagnosis.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will conduct a detailed textual review to extract the 11 and 12 types of *Baala Pitham* from designated Siddha *classics.* They will identify key clinical features, *kutram* involvement, causative factors, and pathophysiology. Comparative charts will be prepared highlighting diagnostic differences and criteria.
Step 02 (Second 70 Minutes) Students will engage in peer discussions to refine understanding, resolve classification discrepancies, and consolidate the findings. They will prepare a comprehensive literary documentation or portfolio that includes references, diagrams, comparative charts, and symptom-based profiles for each type of *Baala Pitham.*
Assessment (Final 20 Minutes) Teacher will assess the completeness, clarity, and accuracy of the compiled documentation. Students will submit critical reading papers and maintain organized records. Peer assessment will evaluate participation and understanding during group discussions. Emphasis will be on the ability to interpret classical Siddha *literature* and apply it to clinical pediatric practice.

Experiential-Learning 5.6 : Clinical Case Discussion and Siddha Management Planning for Pediatric *Baala Pitham*

Total Duration of the Activities 3 Hours
Students will engage in clinical case-based discussions centered on *Baala Pitham (Pitha Noigal),* emphasizing Siddha diagnostic reasoning, differentiation, and management. Faculty will present five pediatric cases (real or simulated). Students, working in groups, will analyze clinical signs, apply Siddha diagnostic tools, and design personalized treatment plans integrating internal medicines, *Pathiyam* (dietary advice), and rejuvenative therapies. Follow-up strategies and preventive aspects will also be discussed.
Instructions to Students (First 20 Minutes) Teacher will explain the clinical spectrum of *Baala Pitham,* Siddha diagnostic approaches, and case discussion formats. Students

will be provided with case profiles and guidelines on diagnosing, differentiating, and designing treatment plans for *Baala Pitham* based on Siddha classics.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will review assigned case profiles, identify key symptoms, conduct differential diagnosis using Siddha diagnostic tools *(e.g., Envagai Thervu, Naadi),* and design a complete Siddha treatment plan including internal medicines, dietary guidelines, and external therapies, providing classical justifications.
Step 02 (Second 70 Minutes) Students will present their case analysis and treatment plans to faculty and peers. They will discuss anticipated treatment outcomes, preventive strategies, and approaches to follow-up care, reinforcing Siddha holistic management perspectives for *Baala Pitham.*
Assessment (Final 20 Minutes) Students will be assessed through direct observation, case-based assessment, and practical viva focused on Siddha diagnostic reasoning, treatment planning, and *Baala Pitham* management. Evaluation will include review of case-taking skills and peer assessment, emphasizing clinical accuracy, therapeutic justification, and teamwork during case discussions.

Experiential-Learning 5.7 : Clinical Analysis and Comparative Debate on Pediatric *Singu Noi* Types

Total Duration of the Activities 4 Hours
Students will be divided into small groups, each assigned a different type of *Singu Noi (Vaatha Singu, Pitha Singu, or Kabha Singu).* Using clinical video cases, they will identify key symptoms, diagnose based on Siddha *thodam* predominance, and propose Siddha treatment protocols. Groups will present findings, followed by a structured debate comparing treatment outcomes and discussing clinical relevance under faculty supervision.
Instructions to Students (First 30 Minutes)
Faculty will explain *Singu Noi* classifications, provide video case materials, and describe expectations for case analysis, group presentation, and debate participation. Students should focus on symptom identification, Siddha-based diagnosis, treatment planning, and outcome analysis while preparing to compare their findings critically during the debate.
Students' Activities (Next 180 Minutes - 60 mins + 60 mins+ 60 mins)
Step 01 (First 60 Minutes) Students will analyze assigned video cases of *Singu Noi*. They will document clinical symptoms, classify the disorder based on *thodam* predominance, and prepare a treatment plan following Siddha protocols including internal and external therapies.
Step 02 (Second 60 Minutes) Each group will deliver a presentation detailing clinical features, diagnostic reasoning, and Siddha therapeutic approaches for their assigned *Singu* type. Focus will be on structured communication and clinical justification.
Step 03 (Third 60 Minutes) Students will participate in a structured debate, comparing different *Singu Noi* types regarding treatment effectiveness, prognosis, and clinical management challenges, integrating Siddha principles and modern-day relevance.
Assessment (Final 30 Minutes) Faculty will assess student performance using structured rubrics for presentation and debate. Evaluation will focus on comprehension of Siddha concepts, clinical analysis, communication clarity, and critical comparison skills. Peer assessment will also contribute to the final evaluation by reflecting teamwork, analytical depth, and engagement during the debate activity.

Experiential-Learning 5.8 : Peer-Led Evaluation and Gamified Exploration of Pediatric *Singu Noi*

Total Duration of the Activities 3 Hours
Students will start with a blended learning session using visual aids and instructor-led discussions on the classification and clinical features of *Singu Noi.* They will then work in peer groups to analyze case scenarios and classify *Vaatha, Pitha, and Kabha Singu* using reference checklists. The session transitions into a game-based quiz to reinforce learning, followed by a clinical case-based discussion to reflect on Siddha therapeutic applications.
Instructions to Students (First 20 Minutes) Teacher will introduce the *Singu Noi* classifications through visual aids, explain the peer group activities, distribute reference checklists, and provide guidelines for the *game-based quiz* and case-based discussions. Students should focus on collaborative learning, accurate diagnosis, and clinical application of Siddha therapies.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will engage in blended learning and structured discussions, identifying clinical features of *Vaatham, Pitham, and Kabham Singu Noi.* Peer groups will work on case scenarios, classify the *Singu type*, and collaboratively suggest Siddha treatment approaches including internal and external therapies.
Step 02 (Second 70 Minutes) Students will participate in a game-based learning quiz to test their knowledge of classification, clinical features, and Siddha management of *Singu Noi.* They will then apply quiz learnings to simulated pediatric case scenarios in a brief follow-up discussion.
Assessment (Final 20 Minutes) Students will be evaluated through peer assessments, practical case-taking exercises, and group presentations. Faculty will assess clinical understanding, teamwork, and the ability to apply Siddha diagnostic and treatment principles effectively. Evaluation will focus on accuracy, collaboration, clinical judgment, and participation in both discussions and game-based activities.

Modular Assessment

Assessment method	**Hour**
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 6C. **Section - A** This 25-mark assessment uses clinical case vignettes to evaluate students' ability to analyze, differentiate, and plan treatment for pediatric hematological and hepatic conditions such as *Paandu, Sobai, Manjal Noi, Kaamalai Ullu Rogam, Karal Sura Rogam, and Karal Rogam.* Students apply *Siddha* diagnostic tools, symptom-based classification, and therapeutic principles to deliver structured clinical responses. Instructions to Students: Students will be presented with a pediatric case scenario involving signs of pallor, jaundice, or hepatic discomfort. Identify the condition, perform *Siddha*-based classification, explain symptom relevance, and propose a complete therapeutic and preventive management plan. No reference materials or digital devices are allowed. Justify your approach during a short viva. Instructions to Teachers: Provide students with structured clinical scenarios covering conditions like *Paandu/ Karal Rogam* from M05.U1 and M05.U2. Evaluate their ability to apply Siddha diagnostic logic, classify subtypes, interpret symptoms, and formulate a treatment plan. Use structured rubrics for each assessment component, including clarity in presentation,*thodam* correlation, and preventive strategies. Mark Distribution: The total marks for this assessment are 25. Case Interpretation and Diagnosis (Subtype Classification) carries 7 marks, Symptom Analysis and *Siddha* Pathophysiology is allotted 6 marks, Treatment Planning (Internal Medicines and *Paatiyam*) receives 6 marks, while Preventive	4

Guidelines and Lifestyle Integration and Viva Justification and Clinical Reasoning carry 3 marks each.
&
Section - B This 25 marks assessment tests the student's ability to analyze pediatric conditions such as *Baala Pitham and Singu Noi* through written case study and structured open book responses. It emphasizes *Siddha* classifications, clinical reasoning, diagnostic interpretation, therapeutic planning, and outcome evaluation with textual references. Integration of classical and clinical understanding is expected.
Instructions to Students: Students will first answer a theory case study question involving a pediatric patient with symptoms of *Pitha* disorders or tongue inflammation. Then, students will answer open book structured questions using permitted texts. Focus on accurate classification, *Siddha* reasoning, and complete treatment planning. Avoid copying—apply the concepts thoughtfully.
Instructions to Teachers: Frame the case study to reflect realistic symptoms of *Baala Pitham/ Singu Noi* from M05.U3 and M05.U4. Evaluate student ability to identify subtypes, describe symptom patterns, apply *Siddha* pathophysiology, and write practical treatment strategies. Open book questions should prompt comparison, synthesis, and reasoning, not mere reproduction of textual content.
Mark Distribution: The total marks for this assessment are 25. Theory Case Study – Diagnosis and *Siddha* Pathophysiology carries 8 marks, Therapeutic Planning is allotted 6 marks, Open Book Structured Response – Clinical Integration from Texts receives 6 marks, Symptom Differentiation and Subtype Identification carries 3 marks, and Justification and Clarity is awarded 2 marks.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

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 6 : ?????????????? ????????? ????????????, ??????????? ?????? ??????? ????? ??????? - Kuzhanthaigalukku Undaagum Pirappuruppu, Siruneerpaathai Thottru Matrum Thaapitha Noigal (Pediatric Genito-Urinary Tract Disorders and Infective/Inflammatory Diseases in Children)

Module Learning Objectives

(At the end of the module, the students should be able to)

Describe Siddha classifications of *Baala Megam* and related disorders.
Identify types and emergency management of *Sanni Noi* in children.
Differentiate symptoms of *Suram, Kudora Suram, and Oozhi Noi* types.
Apply Siddha therapeutic interventions for pediatric urinary disorders.
Analyze eruptive disorders like *Mannan and Balar Vaisoori* clinically.
Evaluate Siddha treatment outcomes for pediatric infectious conditions.

M 6 Unit 1 ??? ?????, ???? ?????, ??????? ?????, ??????? ??????????, ?????? ????? ??????? ????? ????? - Bala Megam, Anda Vatham, Moothira Kaatham, Moothira Kiricharam, Achmari Rogam and Vasthi Rogam

6.1.1 Classification of *Baala Megam* – Five types based on urinary characteristics, systemic signs, and *thodam* influences in infants with emphasis on individualized Siddha diagnostic approach. 6.1.2 Classification of *Anda Vaatham* – Seven pediatric types affecting scrotal and testicular regions, with clinical features such as swelling, tenderness and etiological factors including trauma, *thodam* derangement, and congenital origins. 6.1.3 Classification of *Moothira Rookam – Moothira Kaatham, Moothira Kiricharam, Achmari Rookam, and Vasthi Rookam* based on clinical symptoms like retention, pain and bladder dysfunctions in Siddha pediatric practice. 6.1.4 Comparative Symptom Analysis – Symptom differentiation between *Baala Megam, Anda Vaatham,* and other genito-urinary or metabolic pediatric disorders to support precise Siddha diagnosis. 6.1.5 Siddha Management Protocols – Internal and external treatment regimens, dietary plans, and preventive strategies tailored to pediatric urinary and reproductive health.

References: 61,83,88

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Understand and recall the classifications and apply clinical features of *Baala Megam and Anda Vaatham*	3	Experiential-Learning 6.1	CAP	Does	REC,TBL,GBL
CO1,CO2,CO7	Recognize and recall classification, symptoms, and causes of urinary disorders in children.	4	Experiential-Learning 6.2	AFT-VAL	Does	EDU,ML,REC

CO1,CO4,CO5	Examine *Baala Megam, Anda Vaatham* classifications, features, diagnostics, and *kutram* significance in Siddha pediatrics.	1	Lecture	AFT-VAL	Knows-how	L&GD,DIS,L
CO1,CO4,CO5	Describe *Baala Megam, Anda Vaatham* with pediatric metabolic and urinary disorders for accurate diagnosis.	1	Lecture	CAN	Knows-how	DIS,L&GD
CO1,CO4,CO5	Discuss Siddha protocols for *Baala Megam, Anda Vaatham,* and urinary disorders in holistic pediatric care.	1	Lecture	CC	Knows-how	L,L&GD,DIS
CO6	Demonstrate guided diagnostic and management skills in *Baala Megam.*	2	Practical Training 6.1	PSY-GUD	Shows-how	D-BED,IBL,RLE
CO1,CO6	Demonstrate diagnostic steps for classifying *Anda Vaatham* in pediatric patients.	2	Practical Training 6.2	PSY-GUD	Shows-how	SIM,D-BED,IBL
CO1,CO3,CO6	Prepare and initiate pediatric urinary disorder examination based on Siddha principles.	2	Practical Training 6.3	PSY-SET	Shows-how	IBL,RLE,D-BED,SIM

M 6 Unit 2 ????? ????, ????? ??? - Sanni Noi, Sanni Vali

6.2.1 Classification of *Sanni Noi* and *Sanni Vali* – Twelve types of *Sanni* classified based on altered consciousness and convulsive features, with emphasis on acute presentations and emergency Siddha interventions such as *nasiyam, thylam and pugai* for pediatric stabilization. 6.2.2 Preventive Strategies in Pediatric Infectious Conditions – Siddha principles of prevention focusing on seasonal adaptation *(Kaala Maruthuvam),* diet regulation *(Patiyam),* personal hygiene, and immune-strengthening herbs for reducing infectious risks in children. 6.2.3 Holistic Management of *Sanni* Conditions – Comprehensive Siddha management integrating internal formulations, external therapies, humour balancing, *Udal Kattugal* correction and supportive care for long-term relief from *Sanni Noi* and *Sanni Vali.* 6.2.4 Education and Counseling in Siddha Pediatric Care – Importance of parental awareness in recognizing early symptoms, maintaining adherence to Siddha regimen, dietary practices, and ensuring safe administration of pediatric Siddha medications at home.

References: 83,84

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Participate in rapid identification and response to *Sanni* and *Sanni Vali* symptoms	4	Experiential-	AFT-RES	Does	RLE,D-

			Learning 6.3			BED,PAL
CO1,CO4,CO5	Examine *Sanni Noi, Sanni Vali* classification and Siddha emergency treatments in pediatric critical conditions.	1	Lecture	CAN	Knows-how	L,DIS,L&GD
CO1,CO4,CO5	Discuss preventive care in pediatric infections using Siddha principles, focusing on diet, hygiene, seasons, immunity, cases.	1	Lecture	CC	Knows-how	DIS,L&GD,L
CO1,CO3,CO7	Apply guided Siddha emergency and preventive care interventions for *Sanni* disorders.	3	Practical Training 6.4	PSY-GUD	Shows-how	SIM,D-BED,PAL,RP

M 6 Unit 3 ??? ????, ????? - Oozhi Noi, and Suram

6.3.1 Classification of *Oozhi Noi and Balar Suram* – Three types of *Oozhi Noi* categorized based on *kutram* predominance and symptom progression. Eight types of *Balar Suram* with etiological factors, fever stages, systemic manifestations, and relevance in Siddha pediatric practice. 6.3.2 Classification of *Nava Suram and Kudora Suram* – Nine types of *Nava Suram* and fourteen types of *Kudora Suram* described with details on onset, causation, symptomatology, and complications, aiding early Siddha-based identification and intervention. 6.3.3 Classification of *Kulir Suram and Kulircchi* – Siddha perspectives on cold-induced febrile states such as *Kulir Suram and Kulircchi,* focusing on clinical features, diagnostic cues, and pediatric management approaches. 6.3.4 Comparative Features in Pediatric Fevers and Infections – Comparative analysis of symptoms among *Balar Suram, Nava Suram, Kudora Suram, and Oozhi Noi* to aid differential diagnosis and precise Siddha treatment planning. 6.3.5 Siddha Management of Febrile and Inflammatory Pediatric Conditions—Siddha protocols involving internal herbal formulations, *external therapies,* and preventive care aimed at reducing fever-related complications and ensuring pediatric recovery.

References: 58,60,65,68,83,84,86,87,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO8	Participate actively in patient observation and respect pediatric patient care values in *Oozhi Noi and Balar Suram*	3	Experiential-Learning 6.4	AFT-RES	Does	PAL,CBL,D-BED,BL
CO1,CO3,CO4	Value diagnostic methods for precise *Nava Suram and Kudora Suram*	3	Experiential-Learning 6.5	AFT-VAL	Does	D-BED,CBL,PAL

CO1,CO3,CO4	Advocate in early identification and care for pediatric febrile and neurological conditions.	3	Experiential-Learning 6.6	AFT-RES	Does	D-BED,PAL
CO1,CO4,CO5	Describe *Balar Suram, Kudora Suram, Oozhi Noi* features and Siddha management.	1	Lecture	CAN	Knows-how	L,L&GD,DIS
CO1,CO4,CO5	Analyze *Suram* types and infections with Siddha interventions for pediatric fevers.	1	Lecture	CAN	Knows-how	DIS,L&GD,L
CO1,CO3,CO6	Demonstrate readiness to assess and manage pediatric *Oozhi Noi.*	2	Practical Training 6.5	PSY-SET	Shows-how	PAL,RLE,D-BED,CBL
CO1,CO3,CO6	Perform supervised pediatric fever assessment using Siddha diagnostic tools.	2	Practical Training 6.6	PSY-GUD	Shows-how	CBL,D-BED,SIM,PAL
CO1,CO3,CO6	Perform guided assessment and management of pediatric seasonal fevers.	2	Practical Training 6.7	PSY-GUD	Shows-how	D-BED,RLE,SIM,CBL

M 6 Unit 4 ??????, ????? ?????? - Mannan, Balar Vaisoori

6.4.1 Classification of *Mannan* – Eight and nine types of *Mannan* categorized based on *kutram* predominance and clinical stage. Includes differences in fever patterns, skin eruptions, and systemic disturbances relevant to pediatric Siddha diagnosis. 6.4.2 Classification of *Balar Vaisoori, Anali, Patrai Noi, and Kalloori Noi* – Types of eruptive childhood infections with clinical features, *kutra*-based etiology, disease phases, and their importance in Siddha pediatric care. 6.4.3 Complications of *Balar Vaisoori* Leading to *Balar Aliyan* – Consequences of untreated *Balar Vaisoori* including secondary infections and systemic failure manifesting as *Balar Aliyan.* Includes Siddha emergency care strategies. 6.4.4 Comparative Symptoms of Eruptive Fevers – Symptom analysis of *Mannan, Balar Vaisoori, Anali, and Kalloori Noi* focusing on rash morphology, fever, and systemic features. 6.4.5 Siddha Treatment Protocols for *Ammai Noigal* – Internal medicines, *external therapies (Poochu, Thylam), fumigation (Pugai),* and dietary regimens for healing, complication prevention, and recovery.

References: 58,82,83,87,118

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4	Participate in recognizing and classifying *Mannan* types to aid clinical care.	3	Experiential-Learning 6.7	AFT-RES	Does	PAL,D-BED
CO1,CO4,CO7	Identify, document, and classify eruptive pediatric conditions using Siddha principles	3	Experiential-Learning 6.8	AFT-RES	Does	RLE,PER,DIS
CO1,CO4,CO5	Examine *Mannan, Ammai Noikal* types, kutram roles, symptoms and treatments.	1	Lecture	CAN	Knows-how	DIS,L,L&GD
CO1,CO4,CO5	Discuss measles, chickenpox symptoms, complications, and diagnostic features in Siddha.	1	Lecture	CAN	Knows-how	L,L&GD,DIS
CO1,CO4,CO5	Discuss Siddha protocols for *Ammai Noigal* with diet and preventive strategies.	1	Lecture	CC	Knows-how	DIS,L,L&GD
CO1,CO3,CO6	Demonstrate guided assessment and classification of measles types in children.	2	Practical Training 6.8	PSY-GUD	Shows-how	CBL,D-BED,RLE,SIM
CO1,CO3,CO6	Perform clinical assessment and plan Siddha management for pediatric eruptive disorders.	3	Practical Training 6.9	PSY-MEC	Shows-how	D-BED,CBL,SIM,TBL

Practical Training Activity

Practical Training 6.1 : Clinical Diagnosis and Siddha Management of *Baala Megam*

Total Duration of the Activities: 2 Hours

Students will clinically observe infants presenting with signs of *Baala Megam* and perform assessments using Siddha diagnostic principles. Emphasis will be placed on evaluating changes in urine characteristics, *kuttram* dominance, and systemic symptoms. Students will apply classification frameworks, develop individualized treatment plans, and practice patient and caregiver communication for supportive and dietary advice.

Instructions to the Students (First 20 Minutes): Teacher will explain the five classical types of *Baala Megam* and guide observation of signs like altered urination, pallor, indigestion, and lethargy. Students will review humoural imbalances, prepare for clinical examinations, and engage in differential diagnosis through simulated or real patient

interaction supported by Siddha diagnostic tools.
Students activity
Step 01 (First 40 Minutes): Students will assess infants (real or simulated) with symptoms suggestive of *Baala Megam.* They will perform detailed clinical history-taking, examine urinary characteristics such as frequency, color, and volume, and record systemic features. Students will begin preliminary classification and diagnosis using Siddha nosological approaches and *kuttram* analysis.
Step 02 (Next 40 Minutes): Students will interpret clinical findings and correlate them with the five *Baala Megam* types. They will develop Siddha treatment plans, including suitable internal medicines and dietary protocols. In teams, students will participate in caregiver role play, explaining their management strategy and offering preventive advice tailored to infant care.
Assessment (Final 20 Minutes): Teacher will assess each student's classification accuracy, logic in case presentation, and clarity in role-play delivery. Observation will focus on clinical confidence and relevance of Siddha recommendations. Written case summaries will be reviewed, and a short viva will verify understanding of *Baala Megam* subtypes and treatment principles.

Practical Training 6.2 : Clinical Diagnosis and Therapeutic Planning for Pediatric *Anda Vaatham*

Total Duration of the Activities: 2 Hours
Students will observe and evaluate real or simulated pediatric cases of *Anda Vaatham,* presenting with signs like scrotal swelling, pain, and color change. They will apply Siddha diagnostic principles to classify the case into one of the seven types, analyze *kuttram* involvement, and recommend internal and external treatment strategies including dietary regimens.
Instructions to the Students (First 20 Minutes): Teacher will explain the seven types of *Anda Vaatham* and their classical signs. Students will learn to evaluate symptoms like scrotal tenderness, redness, or warmth and understand systemic involvement. They are expected to use Siddha diagnostic tools and *pathiyam* guidelines during case observation and record structured clinical notes.
Students activity
Step 01 (First 40 Minutes): Students will perform clinical evaluation of real or simulated pediatric cases with suspected *Anda Vaatham.* They will record key symptoms, assess *kuttram* aggravation using *Naadi and Envagai Thervu,* and classify the condition under the appropriate Siddha category. Each student will document their findings for presentation and discussion.
Step 02 (Next 40 Minutes): Students will work in small groups to develop individualized Siddha management plans. These will include internal herbal medicines, suitable external applications such as *thylam or patru,* and dietary guidelines. Each group will present their plan and discuss the logic behind their choices based on Siddha classical references.
Assessment (Final 20 Minutes): Teacher will assess student performance through observation of case-taking, diagnosis accuracy, and clarity in treatment recommendations. Clinical notes will be reviewed, and simulated interactions will be used to evaluate communication skills. A short viva will test understanding of *Anda Vaatham* types, *kuttram* assessment, and Siddha management principles.

Practical Training 6.3 : Clinical Assessment and Management of Pediatric Urinary Disorders

Total Duration of the Activities: 2 Hours

Students will clinically examine pediatric cases with urinary symptoms and classify them under *Moothira Kaatham, Moothira Kiricharam, Achmari Rookam,* or *Vasthi Rookam* using Siddha diagnostic tools like *Naadi and Envagai Thervu.* They will identify kutram imbalances, formulate stage-specific treatments, and engage in peer discussions to refine treatment protocols based on classical Siddha texts.

Instructions to the Students (First 20 Minutes): Teacher will demonstrate clinical features and *Naadi-based* assessment for the four pediatric urinary conditions. Students should observe systemic signs like pain, retention, and dysuria, review Siddha classifications, and prepare to analyze real or simulated cases. They are expected to participate in discussions and apply classical Siddha principles in diagnosis.

Students activity

Step 01 (First 40 Minutes): Students will perform history taking and physical examination for assigned pediatric cases. They will record symptoms like burning, frequency, retention, or pain, and classify the condition under the four Siddha categories. *Naadi* and other diagnostic parameters will guide *kuttram* identification and case categorization. Findings will be documented systematically.

Step 02 (Next 40 Minutes): Students will develop and present Siddha treatment plans, including internal herbal formulations, external applications, and dietary advice. Emphasis will be placed on selecting *kutram*-specific therapies and preventive regimens. Each student will present their diagnosis and management plan, receiving feedback from peers and the teacher on therapeutic accuracy.

Assessment (Final 20 Minutes): Teacher will assess students based on accuracy of diagnosis, clarity of case notes, and logic in Siddha treatment planning. Performance during case interaction will be observed. A short viva will evaluate understanding of Siddha urinary disease classifications, *kutram* identification, and practical application of Siddha *therapeutics* in pediatric care.

Practical Training 6.4 : Emergency Siddha Management and Parental Counseling for Pediatric *Sanni and Sanni Vali*

Total Duration of the Activities: 3 Hours

Students will engage in simulated and bedside demonstrations for Siddha emergency management of *Sanni and Sanni Vali* in children. They will explore 12 types of *Sanni,* with emphasis on *thodam* involvement and clinical stages. Interventions like *nasiyam, pugai,* and *thylam* application will be practiced. Role plays will train students to counsel parents about early signs, lifestyle regimens, and *paatiyam* to prevent recurrence or deterioration.

Instructions to the Students (First 30 Minutes): Teacher will demonstrate emergency Siddha care methods for various *Sanni* types and highlight *Sanni Vali.* Students must observe signs such as altered consciousness, seizures, or delirium and understand their *kuttram* basis. Students will participate in preventive strategy discussions and prepare for hands-on demonstrations and caregiver role plays.

Students activity

Step 01 (First 60 Minutes): Students will assess clinical scenarios representing different *Sanni* types and classify them using *Siddha* nosology. They will simulate Siddha emergency interventions such as *nasiyam, pugai, and thylam application*. Students will record findings, identify *kuttram* dominance, and observe emergency protocols required for specific *Sanni* variants.

Step 02 (Next 60 Minutes): Students will form groups and develop holistic management plans for assigned *Sanni* conditions. They will present caregiver role plays covering

early symptom recognition, Siddha home remedies, *pathiyam*, and hygienic lifestyle practices. These role plays will be peer-reviewed and guided by the teacher for completeness, communication quality, and therapeutic accuracy.
Assessment (Final 30 Minutes): Teacher will assess simulation performance including *nasiyam and thylam application* techniques. Case discussions and role plays will be evaluated for diagnosis clarity and practical advice. A short viva will test understanding of *Sanni* classification, emergency Siddha treatments, and effectiveness of communication in caregiver education and preventive counseling.

Practical Training 6.5 : Clinical Examination and Siddha Management of *Oozhi Noi* in Pediatric Practice

Total Duration of the Activities: 2 Hours
Students will clinically evaluate pediatric cases of *Oozhi Noi*, classified into three *kutram*-based types: *Vali Oozhi, Azhal Oozhi, and Iyyam Oozhi.* Through simulation and structured case-taking, students will assess fever stages, systemic signs, and *kutram* dominance. *Siddha*-based treatment planning will include internal medicines, supportive regimens, and caregiver education for symptom monitoring and complication prevention.
Instructions to the Students (First 20 Minutes): Teacher will explain the classification of *Oozhi Noi* based on *Vali, Azhal, and Iyyam.* Students will observe simulated cases demonstrating systemic symptoms and fever patterns. They are expected to document *kuttram* signs, apply Siddha reasoning to case classification, and formulate therapeutic approaches through patient simulation and team discussion.
Students activity
Step 01 (First 40 Minutes): Students will review three case scenarios representing each *Oozhi Noi type*. They will identify *kuttram* involvement, fever stage, and accompanying symptoms like thirst changes or digestive disturbance. Preliminary documentation of diagnosis, disease classification, and staging will be recorded. Students will discuss findings and prepare for therapeutic planning.
Step 02 (Next 40 Minutes): Students will simulate patient and caregiver interactions in pairs. Each student will explain their treatment plan using internal remedies, external support, and dietary regimens. Emphasis will be placed on clear communication suited to non-medical caregivers. Peer feedback will follow, with teacher guidance to ensure alignment with Siddha principles.
Assessment (Final 20 Minutes): Teacher will assess accuracy in *kuttram*-based classification, clarity in case notes, and treatment logic. Observation during simulation will focus on communication skills and ability to explain interventions clearly. A short viva will test student understanding of *Oozhi Noi* types, Siddha pathophysiology, and the rationale behind prescribed remedies and regimens.

Practical Training 6.6 : Clinical Classification and Siddha Management of Pediatric *Baalar Suram and Nava Suram*

Total Duration of the Activities: 2 Hours
This practical introduces students to Siddha classification of *Baalar Suram* (8 types) and *Nava Suram* (9 types) in children. Through observation and simulation, students will apply *Naadi and Envagai Thervu* to diagnose fever type and stage. They will explore *kuttram* involvement and suggest internal Siddha formulations, dietary modifications, and supportive therapies based on fever progression.
Instructions to the Students (First 20 Minutes): Teacher will explain the types and phases of *Baalar Suram and Nava Suram.* Students will observe pediatric fever symptoms

like *Udaluruvudhal, Kulirppu, and Sudar*. They will identify *kuttram* dominance and prepare to classify and manage the case using *Siddha* stage-specific treatment protocols through practical simulations and discussion.
Students activity
Step 01 (First 40 Minutes): Students will evaluate pediatric patients or simulations presenting with febrile symptoms. They will identify the fever type based on rash, digestion, thirst, sleep disturbance, or mental status. Using *Naadi and Envagai Thervu,* they will classify each case under *Baalar Suram or Nava Suram* and document their findings clearly.
Step 02 (Next 40 Minutes): Students will collaborate in teams to develop treatment protocols tailored to each fever type and its stage. They will include herbal internal remedies, *thylam,* and dietary guidance aligned to *kuttram* involvement. Presentations will include discussion on preventive care and stage-wise therapeutic logic, reinforced with classical Siddha references and reasoning.
Assessment (Final 20 Minutes): Teacher will assess students based on diagnostic accuracy, understanding of *kutram,* and appropriateness of Siddha treatment plans. Case note clarity and presentation effectiveness will be reviewed. Viva questions will test recognition of *Suram* phases and management approaches suited to pediatric patients, ensuring applied knowledge and clinical confidence.

Practical Training 6.7 : Clinical Assessment and Siddha Management of *Kudora Suram, Kulir Suram, and Kulircchi*

Total Duration of the Activities: 2 Hours
This clinical practical introduces students to the classification and management of seasonal and epidemic fevers in children—*Kudora Suram* (14 types), *Kulir Suram, and Kulircchi.* Through observation and simulation, learners will apply Siddha diagnostic principles using *Naadi and Envagai Thervu,* assess *thodam* influence, and prepare Siddha-based therapeutic plans that include internal medicines, external applications, *pathiyam,* and preventive care.
Instructions to the Students (First 20 Minutes): Teacher will demonstrate signs of seasonal and *thodam* fevers using simulated cases. Students will observe fever patterns, shivering, and related symptoms. They will apply *Naadi* and Siddha symptom analysis to identify fever types. Students must prepare for clinical interaction, diagnosis, and management plan development based on Siddha principles.
Students activity
Step 01 (First 40 Minutes): Students will perform case-taking on real or simulated pediatric patients with fever. They will analyze signs such as chills, tongue color, sweat, and thirst, and classify the condition into one of the *Kudora Suram types or Kulir Suram.* Disease staging and *thodam* imbalance will be recorded in structured formats.
Step 02 (Next 40 Minutes): Students will work in small groups to prepare Siddha treatment strategies using classical references. Plans will include herbal decoctions, Thylam for external application, steam inhalation, and *paatiyam.* Groups will present and compare management protocols, highlighting early intervention techniques and relapse prevention. Teacher will moderate discussion for accuracy and depth.
Assessment (Final 20 Minutes): Teacher will assess each student's case classification accuracy, diagnostic logic, and treatment selection. Structured viva will test understanding of *Kudora Suram* types and management of *Kulir Suram and Kulircchi.* Practical interaction with simulated patients will also be evaluated for thoroughness and clarity in applying Siddha fever management.

Practical Training 6.8 : Clinical Recognition and Siddha Management of *Mannan* (Measles) in Children

Total Duration of the Activities: 2 Hours

This clinical session introduces students to the identification and Siddha classification of *Mannan* (measles), commonly encountered in pediatric practice. Students will observe real or simulated cases to identify rash progression, fever patterns, respiratory symptoms, and systemic involvement. They will classify the disease using Siddha nosology (8 or 9 types), assess *kutram* predominance, and formulate stage-wise *Siddha treatment* protocols. Internal remedies, external therapies, *pathiyam,* and immune-supportive measures will be emphasized for holistic care.

Instructions to the Students (First 20 Minutes): Teacher will brief students on the Siddha classification and symptomatology of *Mannan.* Students will observe a clinical demonstration or simulation and document key features—rash patterns, fever course, and systemic signs. They will apply Siddha principles to classify the type of Mannan and discuss *kuttram* involvement and therapeutic implications.

Students activity

Step 01 (First 40 Minutes): Students will individually perform case-taking on a simulated pediatric measles patient. They will record presenting symptoms, rash characteristics, and systemic disturbances. Based on Siddha classification criteria, they will identify the type of *Mannan,* assess disease staging, and note *kutram* aggravation. These findings will be documented as structured case notes.

Step 02 (Next 40 Minutes): Students will form pairs to propose Siddha-based treatment strategies. They will select internal medicines such as decoctions and *mathirai,* external therapies like *thylam or patru,* and supportive regimens including *pathiyam* and rest. The plan will include preventive care and complications management. Each pair will discuss their therapeutic rationale with peers and teacher.

Assessment (Final 20 Minutes): Teacher will assess students on the accuracy of their diagnosis, completeness of case documentation, and appropriateness of treatment planning. Simulated patient interaction will be observed for communication clarity. A brief viva will test understanding of Siddha classification, kutram analysis, and individualized care. Peer collaboration will also contribute to final scoring.

Practical Training 6.9 : Clinical Assessment and Management of Pediatric *Ammai Noigal* and Complications

Total Duration of the Activities: 3 Hours

Students will observe and evaluate real or simulated pediatric cases of *Ammai Noigal* including *Balar Vaisoori, Anali, Patrai Noi, and Kalloori Noi.* Through symptom documentation and *kuttram* analysis, they will classify the condition and assess complications progressing into *Balar Aliyan.* Siddha-based treatment strategies, including internal medications, external therapies, immune-boosting formulations, and preventive care, will be formulated. The session emphasizes practical application, complication prevention, and outcome-oriented management.

Instructions to the Students (First 30 Minutes): Teacher will provide an overview of *Ammai Noigal* types and their *Siddha* classification. Students will observe skin eruptions, vesicular or pustular patterns, and systemic signs. Teacher will demonstrate *kuttram*-based diagnostic clues and explain how untreated cases progress to *Balar Aliyan.* Students are expected to participate in role-based therapeutic discussions and prepare for simulation-based learning.

Step 01 (First 60 Minutes): Students will examine a simulated pediatric case showing vesicular or pustular lesions. They will take clinical history, assess the rash's progression, and record systemic symptoms. Using *Siddha* diagnostic tools, they will classify the case into one of the *Ammai* types and determine *kutram* aggravation. Differential diagnosis and notes will be compiled for discussion.

Step 02 (Next 60 Minutes): Students will work in small groups to prepare Siddha-based treatment protocols for both uncomplicated and advanced cases *(e.g., Balar Aliyan).* Internal medicines, external therapies like *poochu* or *thylam*, and diet-based immune boosters will be selected. Groups will discuss prognosis, complication prevention, and explain therapeutic steps to caregivers through role-play under teacher guidance.
Assessment (Final 30 Minutes): Teacher will assess the students' diagnostic accuracy, clarity of case documentation, and logic in treatment planning. Posters or charts, if prepared, will be reviewed. Viva questions will test their understanding of disease progression, Siddha therapeutics, and early intervention strategies. Role-based problem-solving will be used to evaluate practical and communicative competence.

Experiential learning Activity

Experiential-Learning 6.1 : Interactive Classification and Problem-Solving activity on *Baala Megam and Anda Vaatham*

Total Duration of the Activities 3 Hours
Procedure This interactive session includes recitation, team-based clinical reasoning, and game-based quizzes focused on *Baala Megam* (5 types) and *Anda Vaatham* (7 types). Students begin with oral recitation of classifications and symptoms. They then engage in collaborative case analysis through team-based problem solving, followed by a competitive quiz where they classify disorders using clinical clues, enhancing memory retention and applied understanding of *Siddha* diagnostic reasoning.
Instructions to Students (First 20 Minutes) Faculty will outline session objectives, distribute reference materials, and divide students into teams. Guidelines will be provided for recitation rounds, team-based analysis, and the rules of the quiz game. Students must focus on classification accuracy, diagnostic features, and clinical reasoning throughout the activities.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will recite classifications and features of *Baala Megam and Anda Vaatham*. In teams, they will analyze clinical scenarios and match them to the correct *Siddha* disorder types. Each team presents their diagnostic reasoning and classification logic based on symptoms and *Siddha* etiology.
Step 02 (Second 70 Minutes) Students will participate in a game-based quiz, identifying diseases from symptom clues. Teams earn points based on speed and accuracy. After the quiz, correct answers and clinical interpretations will be discussed to reinforce understanding.
Assessment (Final 20 Minutes) Students will be assessed on recitation accuracy, team collaboration, and quiz performance. Faculty and peer evaluation will consider clarity of classification, clinical reasoning, and engagement. Assessment will focus on how effectively students applied *Siddha principles* in diagnosis through oral, collaborative, and competitive formats.

Experiential-Learning 6.2 : Interactive Classification and Recognition of Pediatric Urinary Disorders

Total Duration of the Activities 4 Hours
Students will utilize a mobile learning platform featuring interactive videos, animations, and quizzes on *Moothira Kaatham, Moothira Kiricharam, Achmari Rookam, and Vasthi Rookam.* After exploring digital modules, students will engage in structured recitation rounds to reinforce memory retention. The session concludes with edutainment-based interactive games and quizzes, enhancing diagnostic application skills through a fun and engaging approach.
Instructions to Students (First 30 Minutes) Faculty will explain session objectives, provide an overview of the mobile learning platform, and instruct students on module

navigation. Guidance for recitation activities and interactive game participation will also be given. Students are encouraged to focus on classification accuracy, symptom recall, and quick clinical application.
Students' Activities (Next 180 Minutes - 60mins + 60 mins + 60 mins)
Step 01 (First 60 Minutes) Students will explore mobile learning modules, including short videos, clinical animations, and initial quizzes on classification and symptomatology of four pediatric urinary disorders. They will complete interactive activities within the platform to reinforce conceptual clarity.
Step 02 (Second 60 Minutes) Students will participate in oral recitation rounds, recalling classifications, causes, and symptoms of *Moothira Kaatham, Moothira Kiricharam, Achmari Rookam, and Vasthi Rookam.* Peer interaction sessions will reinforce correct diagnostic interpretation and traditional *Siddha* terminologies.
Step 03 (Third 60 Minutes) Students will engage in edutainment-based games including digital flashcard drills, symptom-diagnosis matching exercises, and competitive team quizzes. Application of knowledge in simulated cases will be emphasized through interactive play.
Assessment (Final 30 Minutes) Assessment will be based on mobile quiz scores, participation in recitation, and performance in scenario-based games. Faculty and peers will evaluate knowledge retention, clinical reasoning, collaboration, and engagement. Students will be assessed for the accuracy of *Siddha* diagnosis, speed of application, and communication effectiveness during the activities.

Experiential-Learning 6.3 : Clinical Observation and Emergency *Siddha* Intervention for Pediatric *Sanni and Sanni Vali*

Total Duration of the Activities 4 Hours
Students will participate in early clinical exposure activities in OPD/IPD settings, observing pediatric cases diagnosed with *Sanni and Sanni Vali.* Under faculty supervision, they will assist in identifying *Siddha* clinical signs and perform Siddha emergency interventions like *nasiyam, thylam application, chooranam administration, and pukai fumigation.* Students will document clinical observations, engage in group discussions, and refine clinical decision-making through peer-assisted learning.
Instructions to Students (First 30 Minutes) Faculty will instruct students to attentively observe pediatric cases of *Sanni and Sanni Vali,* identifying classical *Siddha* features. Students will be guided on emergency intervention techniques, maintaining confidentiality, and respectful clinical behavior. They must record all observations accurately and actively assist during *Siddha* procedures when instructed.
Students' Activities (180 Minutes - 60 mins + 60 mins + 60 mins)
Step 01 (First 60 Minutes) Students will observe real pediatric patients presenting with convulsive states or painful syndromes. They will document clinical signs, symptoms, probable Siddha classification (among 12 types of Sanni), and initial clinical impressions.
Step 02 (Second 60 Minutes) Students will assist faculty in administering *Siddha* emergency interventions such as *nasiyam, thylam application, chooranam administration, and pukai fumigation.* They will note therapeutic indications, procedural techniques, patient responses, and safety considerations.
Step 03 (Third 60 Minutes) Students will participate in group discussions to present their case findings, *Siddha* diagnostic reasoning, emergency interventions performed, and reflections on clinical outcomes. Peer review and collaborative discussion will help refine judgment and clinical decision-making.
Assessment (Final 30 Minutes) Students will be evaluated based on direct observation during procedures, accuracy of logbook documentation, participation in case discussions, and a practical viva focused on *Siddha* emergency management protocols. Assessment will emphasize procedural skills, diagnostic accuracy, clinical engagement, teamwork, and therapeutic application in pediatric *Siddha practice.*

Experiential-Learning 6.4 : Clinical Observation, Empathy Reflection, and *Siddha* Classification of *Oozhi Noi and Balar Suram*

Total Duration of the Activities 3 Hours
Students will observe pediatric patients presenting with fever and related symptoms, focusing on identifying characteristic features of *Oozhi Noi and Balar Suram* through *Siddha* diagnostic principles. Emphasis will be placed on emotional sensitivity, ethical behavior, and respect toward patients and caregivers. Students will reflect on how personal values impact clinical care outcomes and will collaboratively classify cases and share insights during peer discussions.
Instructions to Students (First 20 Minutes) Faculty will guide students on ethical and respectful clinical conduct. Students must observe pediatric cases attentively, maintain patient privacy, show empathy in interactions, and focus on integrating emotional sensitivity into clinical observations and *Siddha*-based case classifications.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe OPD/IPD pediatric cases, identify clinical features of *Oozhi Noi and Balar Suram,* maintain respectful conduct, and engage empathetically with patients and caregivers. They will discuss among peers how respectful engagement improves diagnostic observation and care delivery.
Step 02 (Second 70 Minutes) Students will collaborate in small groups to classify observed cases using *Siddha* diagnostic frameworks. They will share reflections on how values, empathy, and ethical behavior influenced their clinical learning, diagnostic clarity, and patient-centered *Siddha* care.
Assessment (Final 20 Minutes) Students will be assessed based on participation, sensitivity during observation, and contributions during peer discussions. Assessment will use a checklist for patient interaction, peer feedback on clinical engagement, and a practical viva focusing on affective learning outcomes and diagnostic accuracy in *Siddha* pediatric care.

Experiential-Learning 6.5 : Clinical Observation and *Siddha* Diagnosis of *Nava Suram and Kudora Suram*

Total Duration of the Activities 3 Hours
Students will observe pediatric OPD/IPD cases with acute or seasonal fevers and classify them according to *Siddha principles* into the 9 types of *Nava Suram* and *14 types of Kudora Suram.* They will use Naadi and Envagai Thervu under guidance and reflect on *kutram* involvement and seasonal triggers. Peer discussions and reflection will reinforce the diagnostic approach and emphasize the value of personalized *Siddha care.*
Instructions to Students (First 20 Minutes) Faculty will orient students to proper bedside behavior, clinical ethics, and how to apply *Siddha* diagnostic methods such as *Naadi and Envagai Thervu* in real-time. Students must focus on fever progression, seasonal context, *kutram* variation, and maintain patient respect throughout the process.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe pediatric fever cases and document symptom patterns, progression, and *kutram* indications. They will begin preliminary classification of fever into *Nava Suram or Kudora Suram* types based on *Siddha* textual guidelines.
Step 02 (Second 70 Minutes) With faculty supervision, students will apply *Siddha* diagnostic tools and refine their classification. They will discuss their reasoning with peers, consider seasonal factors, and reflect on the relevance of accurate *Siddha* diagnosis in effective management of pediatric febrile illnesses.
Assessment (Final 20 Minutes) Students will be assessed through an observation checklist for bedside conduct, documentation accuracy, and classification skill. Peer feedback and a practical viva will evaluate their clinical reasoning, understanding of seasonal-*kutram* correlation, and respect for *Siddha principles* in pediatric fever

management.

Experiential-Learning 6.6 : Early Clinical Exposure and Siddha Emergency Care for Pediatric Febrile and Neurological Conditions

Total Duration of the Activities 3 Hours

Students will be posted in OPD/IPD settings to observe and assist in managing pediatric cases of *Kulir Suram, Kulircchi, Sanni, and Sanni Vali.* They will document clinical signs, participate in *Siddha* diagnostic procedures *(Naadi, Envagai Thervu),* and experience emergency interventions such as *Thylam application and Nasiyam.* Students will reflect on the clinical and emotional dimensions of timely intervention and patient-centered care in pediatric Siddha practice.

Instructions to Students (First 20 Minutes) Faculty will instruct students on observing febrile and neurological signs, conducting respectful caregiver interaction, and participating in diagnostic and emergency procedures. Students should focus on connecting clinical signs to Siddha classifications and appreciate the emotional context of pediatric emergencies.

Students' Activities (140 Minutes)

Step 01 (First 70 Minutes) Students will observe and document 2–3 pediatric cases presenting with conditions such as *Kulir Suram, Kulircchi, Sanni, and Sanni Vali*. Emphasis will be on clinical symptomatology, classification, and initial clinical impressions based on Siddha frameworks.

Step 02 (Second 70 Minutes) Under supervision, students will apply Siddha diagnostic tools and participate in emergency therapeutic interventions such as *Thylam, Nasiyam, and Pukai*. They will discuss experiences with peers, reflect on early recognition and classification, and present their findings in a group format.

Assessment (Final 20 Minutes) Students will be assessed through direct observation of skills, a practical viva, and case-based discussions. Evaluation will focus on diagnostic accuracy, participation in emergency interventions, and peer feedback. Reflective learning and patient-centered thinking in Siddha-based pediatric critical care will be emphasized.

Experiential-Learning 6.7 : Clinical Identification and Classification of *Mannan* (Measles) Types

Total Duration of the Activities 3 Hours

Students will engage in bedside observation of pediatric patients diagnosed with various types of *Mannan* (measles). They will record clinical features including fever progression, rash pattern, and systemic symptoms. Using Siddha diagnostic methods, they will classify cases into 8 or 9 types of *Mannan,* followed by peer discussions and reflection on *kutram*-based differentiation and its role in pediatric clinical decision-making.

Instructions to Students (First 20 Minutes) Faculty will guide students on what symptoms to observe—fever pattern, rash onset and spread, and *kutram-based* clinical features. Students must maintain patient respect, record observations diligently, and prepare to apply Siddha classifications and participate in group classification discussions.

Students' Activities (140 Minutes)

Step 01 (First 70 Minutes) Students will observe and document 3–5 pediatric measles cases, focusing on signs such as skin rash, fever timeline, associated systemic signs, and Siddha-based *kutram* indicators. Notes should follow structured case recording formats.

Step 02 (Second 70 Minutes) Students will use Siddha texts and checklists to classify each case into one of the 8 or 9 *Mannan* types. They will then present their findings in

peer groups, compare diagnostic interpretations, and discuss the clinical significance of correct classification for individualized care.
Assessment (Final 20 Minutes) Faculty will assess students based on case documentation quality, classification accuracy, and participation in peer discussions. Assessment will include DOPS, case-based evaluation, and a practical viva focused on Siddha diagnostic application, accuracy, and reflective learning during early clinical exposure.

Experiential-Learning 6.8 : Clinical Case Observation and Documentation of *Balar Vaisoori, Anali, Patrai Noi, Kalloori Noi* and *Balar Aliyan*

Total Duration of the Activities 3 Hours
Students will participate in clinical rounds, observing pediatric patients diagnosed with *Balar Vaisoori, Anali, Patrai Noi, Kalloori Noi, and Balar Aliyan.* They will document each case's symptoms, *thodam* involvement, and disease progression using Siddha clinical criteria. Through group discussions, students will analyze variations in diagnosis and reflect on complications, gaining clinical confidence and clarity in Siddha pediatric practice.
Instructions to Students (First 20 Minutes) Faculty will instruct students to observe key features of eruptive pediatric diseases such as eruptions, fever, and systemic involvement. Students should classify the condition, record *thodam* factors, and note progression patterns on the case report form. Active participation in discussions and justification of clinical interpretations is expected.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe and document 3–5 pediatric cases of eruptive diseases. They will identify each disease type and stage, analyze *mukkutram* causes, and record disease progression systematically using Siddha diagnostic principles.
Step 02 (Second 70 Minutes) Students will participate in focused peer discussions about complications, especially *Balar Aliyan*. They will compare their case observations and present findings with clinical justifications, emphasizing Siddha diagnosis, early intervention, and recognition of risk factors.
Assessment (Final 20 Minutes) Faculty will assess students based on clinical observation accuracy, proper case documentation, and discussion participation. Emphasis will be on their ability to classify diseases correctly, apply Siddha diagnostic principles, and communicate clinical findings effectively. Assessment will involve clinical work sampling, practical case taking, and performance evaluation.

Modular Assessment

Assessment method	**Hour**
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 6C. **Section A -** 25 Marks - ABQ/ LAQ/SAQ & **Section B** – This 25 marks modular assessment evaluates student proficiency through real-life pediatric scenarios and structured OSPE stations. Students demonstrate *Siddha* diagnostic reasoning, humor-based classification, therapeutic planning, and patient interaction for conditions like *Baala Megam, Anda Vaatham, Moothira Rookam, Sanni Noi, Sanni Vali, Oozhi Noi, Suram Mannan, Balar Vaisoori, and Siddha Management of Pediatric Ammai Noigal*. Emphasis is placed on clinical interpretation and precise *Siddha* application.	4

Instructions to Students: Students will be presented with one structured pediatric scenario (e.g., urinary, febrile, or eruptive illness) and rotate through three OSPE stations. Use *Siddha* diagnostic frameworks to identify subtype, propose management, and explain their rationale clearly. Reference materials are not allowed. Clarity and logical reasoning are essential for full credit.
Instructions to Teachers: Design the scenario based on common pediatric conditions from M6.U1 to M6.M4. OSPE stations should assess classification, Siddha treatment planning, and patient-family explanation skills. Use structured rubrics for uniformity. Evaluate student integration of *Siddha* diagnostics, pathophysiology, and communication proficiency.
Mark Distribution: The total marks for this assessment are 25. Scenario-Based *Siddha* Diagnosis and Subtype Classification carries 7 marks, OSPE Station 1 – Therapeutic Planning (Internal/External) is allotted 6 marks, OSPE Station 2 – Preventive Care/Dietary Planning holds 5 marks, OSPE Station 3 – Communication & Explanation receives 4 marks, and Viva Justification carries 3 marks.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

Semester No : 6

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 7 : ???? ??????? Thol Noigal (Pediatric Dermotological Disorders)

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

Describe classifications and clinical features of pediatric Siddha skin disorders.
Identify symptoms of *Vitharpam, Vaarppu, Parangi, and Karappaan* types.
Analyze skin lesion patterns in *Karappaan, Ponni, and Kuttam* conditions.
Apply Siddha diagnostic methods for dermatological disorders in children.

Plan appropriate Siddha treatments for chronic pediatric skin conditions.
Analyze case-based presentations of childhood dermatological conditions in Siddha.

M 7 Unit 1 ???????? ??????? ???????? - Vitharpam and Vaarppu

7.1.1 Classification of *Vitharpam* – Five types of *Vitharpam* characterized by intense itching, dryness, scaling, and rash patterns; classified based on *thodam* involvement, dietary habits, and environmental triggers. 7.1.2 Classification of *Vaarppu* in Children – Eight types of *Vaarppu* presenting with skin dryness, roughness, thickening, and depigmentation; categorized according to severity, anatomical distribution, and underlying *kutram* imbalance. 7.1.3 Symptom Comparison of *Vitharpam and Vaarppu* – Comparative analysis of itching, scaling, color changes, and lesion texture to differentiate clinical presentations and guide accurate Siddha diagnosis and therapeutic response. 7.1.4 Siddha Treatments for *Vitharpam and Vaarppu* – Internal formulations, external therapies, *paatiyam* and preventive regimens tailored to *Vitharpam and Vaarppu*. 7.1.5 Practical Case Discussions – Real or simulated pediatric cases focusing on *Vitharpam and Vaarppu* diagnosis, individualized Siddha treatment protocols, patient monitoring, and outcome evaluation.

References: 86

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4	Apply clinical and literary insights to understand and document pediatric dermatological disorders.	4	Experiential-Learning 7.1	AFT-SET	Does	RLE,DIS,LS
CO1,CO3,CO4	Apply *Siddha* treatment protocols and preventive methods for pediatric dermatological conditions.	3	Experiential-Learning 7.2	CAP	Does	LS,CBL,PER,DIS,TBL
CO1,CO4,CO5	Examine Vitharpam, Vaarppu types, symptoms, thodam roles, and Siddha treatments for pediatric skin disorders.	1	Lecture	CAN	Know	DIS,L&GD,L
CO1,CO4,CO5	Discuss Siddha management of Vitharpam, Vaarppu with medicines, therapies, lifestyle, and clinical case discussions.	1	Lecture	CC	Know	L&GD,DIS
CO7	Diagnose and manage *Vitharpam* types using guided clinical skills.	3	Practical	PSY-	Shows-	IBL,CBL

			Training 7.1	GUD	how	
CO7	Perform guided clinical assessment of *Vaarppu and Vitharpam* types.	2	Practical Training 7.2	PSY-GUD	Shows-how	CBL,IBL

M 7 Unit 2 ??????????, ?????? ??????? ????? - Parangi Noi, Ponni and Pilavai

7.2.1 Classification of *Parangi Noi* – Four types of *Parangi Noi* presenting with cracked skin, chronic itching, scaling, and ulcerative lesions; classified based on *thodam* variation, lesion site, and severity. 7.2.2 Classification of *Ponni* and Subtypes – Multiple subtypes of *Ponni* characterized by pustular eruptions, hyperpigmentation, and skin thickening; etiological links to hygiene, nutrition, and environmental factors highlighted. 7.2.3 Siddha Treatments for *Parangi Noi* – Internal detoxifying medicines, external cleansing, emollient therapies, and dietary modifications prescribed for symptom relief and prevention of complications. 7.2.4 Siddha Management for *Pilavai and Ponn*i – Herbal applications, fumigation *(Pugai)*, internal formulations, and *paatiyam* used to manage *Pilavai and Ponni;* focus on recurrence prevention and tissue repair. 7.2.5 Case-Based Learning in *Parangi, Ponni, and Pilavai* – Clinical case discussions for differential diagnosis, treatment planning, patient-specific Siddha interventions, and monitoring of pediatric dermatological outcomes.

References: 83,84,85,87,88

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4	Identify *Siddha* classification and treatment of *Parangi Noi.*	3	Experiential-Learning 7.3	PSY-MEC	Does	C_L,CBL,PAL
CO2,CO3,CO6	Analyze the classification and *Siddha* therapeutic principles for *Ponni and Pilavai* in pediatric skin conditions.	3	Experiential-Learning 7.4	CAN	Does	TBL,CBL,PAL,D
CO1,CO4,CO5	Examine Parangi Noi, Ponni types, thodam roles, symptoms, and Siddha management for pediatric skin lesions.	1	Lecture	CAN	Know	L&GD,DIS
CO1,CO4,CO5	Discuss Siddha treatments for Parangi Noi, Ponni, Pilavai with detox, cleansing, diet, and case-based learning.	1	Lecture	CC	Knows-how	L&GD,DIS
CO3	Perform accurate examination and diagnosis of pustular pediatric skin conditions.	3	Practical Training 7.3	PSY-MEC	Shows-how	PAL,IBL,D-BED
CO3,CO7	Implement *Siddha* treatments for pediatric pustular skin diseases.	2	Practical	PSY-	Knows-	ML,TBL,

			Training 7.4	GUD	how	RP

M 7 Unit 3 ??? ???????? - Bala Karappaan

7.3.1 Classification of *Bala Karappaan – Karappaan* classified into 18, 11, and 10 types based on lesion characteristics, *thodam* predominance, seasonal triggers, and disease stage in pediatric skin conditions. 7.3.2 Classification of *Sengamaari Karappaan* – Four distinct types of *Sengamaari Karappaan* characterized by elevated, reddish, and inflamed rashes, correlated with *Pitha-Kapha* imbalance and potential for chronic inflammation. 7.3.3 Symptom Comparison Across *Karappaan* Types – Differentiation of lesion appearance, redness, exudate, itching, and aggravating factors across various *Karappaan* types for accurate Siddha-based diagnosis. 7.3.4 Siddha Treatments for Pediatric *Karappaan* – Siddha internal medicines, external applications, dietary restrictions *(Paatiyam)*, and environmental adjustments for comprehensive dermatological management. 7.3.5 Case-Based Discussions on *Karappaan* – Practical clinical sessions on pediatric *Karappaan* emphasizing *thodam* analysis, symptom interpretation, treatment protocols, and follow-up planning based on Siddha principles.

References: 6,60,68,84,87,91,117

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO6	Analyze classical *Siddha* literature to classify and interpret types of *Balakarappan*	4	Experiential-Learning 7.5	CAN	Does	LS,TPW,C_L,BL
CO1,CO3,CO5	Demonstrate appropriate *Siddha* therapeutic interventions for pediatric *Karappaan* through guided clinical practice.	3	Experiential-Learning 7.6	PSY-GUD	Does	CBL,PSM,C_L,D-BED,PAL
CO1,CO4,CO5	Describe Bala Karappaan, Sengamaari types, clinical features, and Siddha strategies for effective management.	1	Lecture	CS	Knows-how	L,DIS,L&GD
CO1,CO4,CO5	Analyze the different types of *Karappaan*, focusing on symptom differentiation such as rash elevation, redness, and itching, to guide accurate diagnosis and targeted treatment plans in *Siddha* dermatology.	1	Lecture	CAN	Knows-how	L,DIS,L&GD
CO1,CO4,CO5	Discuss *Siddha* treatment approaches for pediatric *Karappaan*, including herbal pastes, oil therapies, and dietary regimens, with a focus on reducing inflammation, restoring skin balance, and preventing recurrence through comprehensive care.	1	Lecture	CC	Knows-how	DIS,L,L&GD

CO3	Demonstrate clinical diagnosis and apply *Siddha* management for *Karappaan.*	3	Practical Training 7.5	PSY-MEC	Shows-how	PAL,SIM,W
CO2,CO4,CO6	Identify lesion types and select appropriate *Siddha therapies* for *Karappaan.*	2	Practical Training 7.6	CAN	Shows-how	DIS,PL,L&GD

M 7 Unit 4 ??????? - Kuttam

7.4.1 Classification of *Kapaala Kuttam* – Five types of *Kapaala Kuttam* affecting the scalp and neck with symptoms such as itching, hair loss, oozing, and boils caused by *thodam* imbalance and environmental factors. 7.4.2 Classification of Pediatric *Kuttam* – Five distinct types of *Kuttam* in children characterized by scaling, discoloration, and ulceration with potential systemic impact if left untreated. 7.4.3 Classification of *Mahaa Kuttam* – Seven types of *Mahaa Kuttam* involving extensive ulceration, induration, and systemic symptoms requiring intensive Siddha interventions. 7.4.4 Symptom Comparison in Scalp Disorders – Differentiates between clinical features of dermatitis and *Mandai Soolai,* focusing on redness, pain, oozing, and lesion distribution in pediatric cases. 7.4.5 Siddha Treatments for Head and Neck *Kuttam* – Siddha therapeutic approaches using *internal medicines, thylam, poochu,* and detox formulations with focus on personalized *thodam* correction and long-term scalp health.

References: 84,87,88

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Compile and document classical *Siddha* literature on *Kuttam* types affecting children.	3	Experiential-Learning 7.7	CK	Does	JC,LS,C_L,TBL,BL
CO1,CO3,CO4	Perform and reflect on *Siddha* therapies for pediatric *Kuttam*	3	Experiential-Learning 7.8	PSY-MEC	Does	D-BED,CD,CBL,PL
CO1,CO4,CO5	Examine Kapaala Kuttam, Kuttam, Mahaakushtam types, symptoms, thodam roles, causes, and early interventions.	1	Lecture	CAN	Knows-how	L,L&GD,DIS
CO1,CO4,CO5	Describe dermatitis, Mandai Soolai symptoms with other pediatric skin disorders for Siddha diagnostic clarity.	1	Lecture	CAN	Knows-how	L&GD,L,DIS

CO1,CO4,CO5	Describe the *Siddha* treatment modalities for pediatric *Kuttam* disorders, and long-term skin restoration.	1	Lecture	CC	Knows-how	L,DIS,L&GD
CO3,CO5	Perform lesion-based examination and identify *Kuttam* type under supervision.	3	Practical Training 7.7	PSY-GUD	Knows-how	CBL,SIM,D-BED
CO3,CO6	Demonstrate application of *Siddha* treatments confidently for pediatric *Kuttam.*	2	Practical Training 7.8	PSY-MEC	Shows-how	PL,CBL,D

Practical Training Activity

Practical Training 7.1 : Clinical Diagnosis and *Siddha* Management of Pediatric *Vitharpam*

Total Duration of the Activities: 3 Hours

This clinical practical focuses on recognizing and managing the five pediatric types of *Vitharpam.* Through structured orientation, demonstration, and hands-on case-taking, students will classify lesion types based on *Siddha principles,* identify kutram origins, and formulate individualized treatment protocols using internal and external therapies. Focus will also be placed on preventive and dietary management.

Instructions to Students (First 30 Minutes): Teacher will introduce the five pediatric types of *Vitharpam* and guide students through lesion assessment, *kutram* identification, and symptom interpretation. Students will review case examples and preparatory charts to enhance understanding. They are expected to correlate symptoms with environmental and dietary triggers and prepare for hands-on clinical examination.

Students activities

Step 01 (First 60 Minutes): Students will examine real or simulated pediatric cases of *Vitharpam* under teacher supervision. They will record symptoms such as dryness, itching, or scaling and classify the disease subtype using *Siddha* nosology. Additional attention will be given to *kutram* predominance, onset history, dietary errors, and seasonal or environmental factors.

Step 02 (Next 60 Minutes): Students will use their clinical findings to prepare *Siddha*-based treatment plans including herbal internal remedies, external therapies, and *paatiyam*. These plans will be shared in peer groups and revised based on feedback. Discussion will focus on therapeutic logic, symptom stage, and tailoring treatment to pediatric needs.

Assessment (Final 30 Minutes): Teacher will assess students using observation checklists and participation in clinical discussion. Practical viva will test accuracy of diagnosis, therapeutic reasoning, and understanding of *Siddha principles*. Students will be evaluated for completeness of case documentation, clarity in treatment protocol, and reflective thinking during peer and group interactions.

Practical Training 7.2 : Differentiation and *Siddha*-Based Management of Pediatric *Vaarppu and Vitharpam*

Total Duration of the Activities: 2 Hours

This clinical practical session trains students to identify and differentiate pediatric *Vaarppu* (8 types) from *Vitharpam* using classical *Siddha* principles. Students will observe and examine lesion texture, dryness, scaling, and humor dominance in pediatric OPD/IPD or simulation settings. They will document findings, compare features, and propose *Siddha*-based therapeutic and preventive protocols.

Instructions to Students (First 30 Minutes): Teacher will review classical *Siddha* definitions of *Vaarppu* and *Vitharpam*. Students must observe demonstration of lesion identification based on dryness, color, thickness, and distribution. Emphasis will be on *Naadi, Envagai Thervu,* and *kutram* dominance. Students are expected to apply this in differential diagnosis and therapy formulation.

Students activities (Next 60 mins - 30 mins + 30 mins)

Step 01 (First 30 Minutes): Students will examine pediatric patients or simulated models showing dermatological signs. They will document affected regions, lesion characteristics, and *kutram* involvement. Preliminary classification into *Vaarppu or Vitharpam* types will be recorded. Findings will be structured using clinical formats to support further peer discussion and diagnosis refinement.

Step 02 (Next 30 Minutes): Students will work in small groups to compare findings, differentiate between *Vaarppu and Vitharpam,* and summarize *thodam*-based inferences. They will prepare tailored *Siddha* treatment plans with stage-wise internal and external applications, dietary guidelines, and preventive strategies. Focus will be placed on early intervention and avoiding aggravation or recurrence.

Assessment (Final 30 Minutes): Teacher will assess students on diagnostic clarity, distinction between *Vaarppu and Vitharpam,* and *Siddha* rationale in treatment plans. Case-taking performance and group summaries will be reviewed. A practical viva will test understanding of *kutram* analysis, clinical reasoning, and *Siddha* therapeutic logic, reinforcing precision and confidence in pediatric dermatology practice.

Practical Training 7.3 : Clinical Diagnosis and *Siddha* Examination of Pediatric *Parangi, Ponni, and Pilavai*

Total Duration of the Activities: 3 Hours

This practical trains students to examine and diagnose pediatric *Parangi* (4 types), *Ponni* (subtypes), and *Pilavai* (pustular lesions). Through bedside demonstrations and hands-on practice, students will analyze lesion features such as thickness, color, and distribution. They will apply *Siddha* classification logic, investigate causative factors, and suggest initial diagnostic and treatment plans.

Instructions to Students (First 30 Minutes): Teacher will explain the classical definitions of *Parangi, Ponni, and Pilavai* from *Siddha texts.* Students should observe bedside demonstrations carefully, noting lesion differences. They must understand the role of diet, hygiene, season, and *kutram* in disease manifestation and prepare to examine, document, and analyze pediatric skin lesions independently.

Students activities

Step 01 (First 60 Minutes): Under teacher supervision, students will examine pediatric patients or simulations with skin disorders. They will document clinical features including lesion thickness, scaling, pus discharge, color, and spread. Findings will be recorded using structured *Siddha* diagnostic formats. Special attention will be given to identifying type-specific signs and humoural implications.

Step 02 (Next 60 Minutes): Students will work in peer-assisted groups to discuss their case findings. They will classify the condition as *Parangi, Ponni, or Pilavai* using classical *Siddha* parameters. They will identify aggravating factors and draft a diagnostic and initial management plan including internal remedies, external applications, and preventive hygiene and dietary advice.

Assessment (Final 30 Minutes): Teacher will assess students on the accuracy of lesion documentation, clarity in type classification, and the logic behind treatment suggestions. Observation checklists will be used during case-taking. A practical viva will evaluate understanding of *Siddha* diagnostic principles and student readiness to manage pediatric skin conditions in clinical settings.

Practical Training 7.4 : *Siddha* Management of *Parangi Noi, Ponni, and Pilavai* – An Interactive Clinical Approach

Total Duration of the Activities: 2 Hours
This practical trains students in the clinical implementation of *Siddha therapies* for *Parangi Noi, Ponni, and Pilavai.* Using case discussions, mobile resources, and simulated interactions, students classify the disease, evaluate *kutram* involvement, and design complete therapeutic plans. Role-play exercises simulate pediatric consultations, emphasizing family education, hygiene, dietary guidance, and ethical considerations in care.
Instructions to Students (First 30 Minutes): Teacher will guide students in using mobile tools to access *Siddha* treatment charts, classical references, and video-based demonstrations. Students must analyze assigned skin disorder cases, discuss treatment selection in groups, and prepare for role-plays that simulate caregiver education on hygiene, internal/external therapies, and symptom monitoring.
Students activities
Step 01 (First 30 Minutes): Students will work in teams to assess case scenarios of *Parangi, Ponni, and Pilavai.* They will identify the disease type, *kutram* predominance, and compile *Siddha* treatment protocols, including herbal formulations, external therapies, paatiyam, and hygiene practices. Each team will document findings and prepare to explain their protocol to a caregiver.
Step 02 (Next 30 Minutes): Each team will perform a role-play simulating a consultation with a caregiver. Students will demonstrate patient education techniques, describe the *Siddha* therapeutic plan, and explain home care practices. They will focus on communication, practical application of therapies, and prevention strategies, incorporating empathy and ethical guidance for families.
Assessment (Final 30 Minutes): Teacher will assess students' diagnostic logic, communication clarity, and practical skills in simulated counseling. Scenario-based assessments will evaluate accuracy of *Siddha* intervention planning. Peer feedback will help refine education delivery and therapeutic reasoning. Reflection on ethical and preventive elements will form part of the final group debrief.

Practical Training 7.5 : Clinical Diagnosis and *Siddha* Management of *Bala Karappaan* and *Sengamaari Karappaan*

Total Duration of the Activities: 3 Hours
This hands-on practical focuses on recognizing and managing 18, 11, and 10 types of *Bala Karappaan* and 4 types of *Sengamaari Karappaan.* Using simulated pediatric patients or lesion models, students will observe lesion characteristics, apply *Siddha* diagnostic tools, and classify the subtype. Customized treatment plans will include internal medicines, external therapies, and caregiver education.
Instructions to Students (First 30 Minutes): Teacher will demonstrate lesion features using pediatric models or case simulations. Students must observe color, size, discharge, and lesion progression. They will refer to *Siddha texts* for classification and *kutram* correlation. Each group will prepare to diagnose, prescribe treatments, and counsel parents with practical recommendations for *Siddha* home care.

Students activities
Step 01 (First 60 Minutes): In groups, students will assess simulated lesion presentations and classify the case into one of the *Bala Karappaan* or *Sengamaari* subtypes. They will record signs, apply *Naadi Paritchai*, and justify their diagnosis with *Siddha* nosological evidence. Documentation will include *kutram* analysis and seasonal or dietary aggravating factors.
Step 02 (Next 60 Minutes): Students will develop a stage-wise *Siddha* treatment protocol using internal and external formulations. They will prepare a sample prescription and role-play a caregiver counseling session, explaining the disease nature, recurrence prevention, and dietary rules. Groups will refine their plans through peer discussion and teacher-guided feedback.
Assessment (Final 30 Minutes): Teacher will evaluate students on diagnostic accuracy, appropriateness of treatment protocol, and clarity during caregiver role play. Each group will submit a checklist summarizing classification, *kutram* involvement, and treatment logic. Peer feedback will assess collaboration, while a brief viva will test understanding of clinical differentiation and *Siddha* management strategy.

Practical Training 7.6 : Case-Based Diagnostic Discussion and Management of Pediatric *Karappaan* Manifestations

Total Duration of the Activities: 2 Hours
This practical enables students to assess *Karappaan* in children through structured case-based discussions. They will identify lesion types, evaluate *kutram* dominance, and explore seasonal and dietary triggers. Through team debates and visual poster presentations, students will apply *Siddha principles* to therapeutic decision-making and communicate differential diagnosis and personalized treatment strategies with clarity and depth.
Instructions to Students (First 15 Minutes): Teacher will distribute *Karappaan* case profiles and explain *Siddha* correlations. Students will analyze symptoms, lesion distribution, *kutram* involvement, and dietary links. They will form groups to prepare for debate on treatment selection and begin outlining a visual poster that reflects their clinical analysis and *Siddha*-based therapeutic plan.
Students activities
Step 01 (First 45 Minutes): In teams, students will assess assigned *Karappaan* cases, identify lesion types, and determine *kutram* imbalance. They will debate *Siddha* treatment strategies—internal remedies, topical agents, and *paatiyam*—citing classical references. Emphasis will be on matching treatment logic to *kutram* dominance, chronicity, and aggravating factors for each clinical presentation.
Step 02 (Next 45 Minutes): Students will design a clinical poster summarizing symptom patterns, *kutram*-based classification, therapeutic plan, and long-term *Siddha* care. The poster will include diagnostic flowcharts, herbs, dosage guidelines, and dietary modifications. Groups will present their posters for peer critique and teacher feedback on clinical accuracy and visual communication.
Assessment (Final 15 Minutes): Teacher will assess students based on debate participation, diagnostic reasoning, and adherence to *Siddha* principles in treatment selection. Posters will be evaluated for clarity, completeness, and visual presentation. Peer feedback will also be used to score teamwork, accuracy, and content relevance in portraying pediatric *Karappaan* management.

Practical Training 7.7 : Clinical Examination and *Siddha* Management of *Kapaala Kuttam* and Pediatric *Kuttam*

Total Duration of the Activities: 3 Hours

This clinical practical introduces students to five types each of *Kapaala Kuttam and Kuttam* in children. Through bedside and simulated cases, students will identify lesion characteristics such as boils, exudate, and discoloration. They will examine humoural involvement, document findings, and propose *Siddha* treatments with reference to classical texts and patient-specific factors.

Instructions to Students (First 30 Minutes): Teacher will demonstrate lesion examination focusing on head and neck involvement. Students must observe differences in discharge, lesion borders, and progression signs. Emphasis will be placed on *kutram* identification and systemic association. Prepare to carry out case assessments and build *Siddha*-based diagnostic and therapeutic impressions.

Students activities

Step 01 (First 60 Minutes): Students will examine real or simulated pediatric cases of *Kapaala Kuttam or Kuttam*. They will assess lesion features including pus, scaling, and tenderness, and document *kutram* involvement. A differential diagnosis using *Siddha* nosology must be recorded and prepared for presentation in the next session.

Step 02 (Next 60 Minutes): Students will create *Siddha* treatment plans based on the identified type, including appropriate internal medications and external applications. They will form small groups and submit a concise case summary highlighting *thodam* interpretation, causative factors, and treatment logic. Classical references should support their therapeutic proposals and diagnostic reasoning.

Assessment (Final 30 Minutes): Teacher will observe students' examination technique and case summary presentations. A checklist will ensure completeness and accuracy. Practical viva will evaluate knowledge of *Kuttam* classification, symptom correlation, and *Siddha* management strategies. Feedback will focus on improving diagnostic precision, therapeutic planning, and integration of *Siddha* clinical concepts.

Practical Training 7.8 : *Siddha* Treatment Strategies for *Kapaala Kuttam and Mahaakuttam*

Total Duration of the Activities: 2 Hours

This practical trains students in hands-on *Siddha* therapeutic application for *Kapaala Kuttam and Mahaakuttam* in children. Students will observe and demonstrate external medicine preparation and application. They will discuss internal formulations based on *kutram* and disease stage. Through caregiver role plays, students will practice dosage instruction, monitoring strategies, and preventive guidance using classical *Siddha* principles.

Instructions to the Students (First 30 Minutes): Teacher will demonstrate external therapy preparation and application techniques. Students must note consistency, site-specific use, and duration of treatment. Internal formulations and dosages will be explained. Monitoring signs, efficacy indicators, and prevention of complications should be understood. Prepare for role-play and quiz based on treatment logic and herb selection.

Students activies

Step 01 (First 45 Minutes): Students will perform simulated interactions, explaining pediatric *Siddha* treatment plans for *Kuttam* conditions to caregivers. They will demonstrate external applications on models or simulated patients, ensuring correct technique. Communication must include instructions on medicine usage, dosage, timing, and potential responses or side effects in simple caregiver-friendly language.

Step 02 (Next 45 Minutes): Students will work in groups to summarize detoxification and supportive internal therapies for *Kuttam*. They will identify key herbs, *kutram*-specific formulations, and supportive regimens. Each student will complete a brief written quiz to assess their recall of *Siddha* formulations, humour implications,

and practical steps in pediatric *Kuttam* management.
Assessment (Final 30 Minutes): Teacher will assess application technique during demonstrations and clarity in caregiver counseling role plays. Viva will evaluate understanding of *mukkutram* rationale and individualized planning. The quiz will test factual recall of herbs, formulations, and clinical indications. Feedback will focus on communication, confidence, and ability to personalize *Siddha* pediatric care.

Experiential learning Activity

Experiential-Learning 7.1 : Clinical Observation and Literary Comparison of Pediatric *Vitharpam and Vaarppu*

Total Duration of the Activities 4 Hours
Students will first observe pediatric cases of *Vitharpam and Vaarppu* during OPD/IPD rounds, documenting *kutram* signs, skin symptoms, and affected areas. This will be followed by a literature review session using *Siddha* classical texts to retrieve classifications, signs, and descriptions. Finally, students will integrate both clinical and literary findings into a comparative documentation report and engage in group discussion for collective analysis.
Instructions to Students (First 20 Minutes) Faculty will brief students on the clinical focus areas—skin presentation, symptom patterns, and *kutram*-based classification of *Vitharpam and Vaarppu.* Guidelines for the library research and documentation process will be explained. Students must approach this activity with an integrative mindset, combining direct observation with classical knowledge.
Students' Activities (200 Minutes)
Step 01 (First 70 Minutes) Students will observe 2–3 pediatric cases during clinical rounds. They will record presenting features, affected regions, associated symptoms, and assign provisional *Siddha* classifications based on *kuttram* involvement.
Step 02 (Second 70 Minutes) Students will access *Siddha* classical texts in the library to retrieve classification systems, causes, and descriptive terms related to *Vitharpam and Vaarppu.* They will compare textual data with clinical cases to identify overlaps and diagnostic patterns.
Step 03 (Third 60 Minutes) Students will prepare an integrated documentation report merging clinical and literary insights. A group discussion will follow, where students compare their diagnostic interpretations and reflect on early recognition and classical understanding of pediatric dermatological conditions.
Assessment (Final 20 Minutes) Faculty will assess the accuracy of clinical observation, quality of literary integration, and clarity of documentation. Participation in group discussions and ability to connect classical knowledge with real cases will be evaluated. Emphasis will be on diagnostic insight, reflective learning, and interpretive application of *Siddha* dermatology.

Experiential-Learning 7.2 : *Siddha* Treatment Planning and Debate on Preventive vs. Curative Care in *Vitharpam and Vaarppu*

Total Duration of the Activities 3 Hours
Students will be divided into small groups, each assigned a pediatric dermatological case of *Vitharpam or Vaarppu*. They will refer to *Siddha* classical texts to design complete treatment protocols, including internal medicines, external therapies, and *Paatiyam* (diet/lifestyle). Students will then participate in a structured debate on prevention vs. curative focus, followed by group presentations and documentation submission.
Instructions to Students (First 20 Minutes) Teacher will provide group case details and explain expectations for treatment planning, debate, and documentation. Students

must review classical *Siddha* references to prepare treatment protocols and justify them during presentations. Teams should also prepare their debate stance—either advocating for preventive or curative emphasis.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Each group will formulate a *Siddha* treatment protocol including appropriate internal formulations *(e.g., Chooranam, Ilagam),* external applications *(e.g., Thylam, Utradam),* and dietary/lifestyle measures. Students will prepare visual posters and documentation outlining treatment timeline, methods, and long-term preventive care strategies.
Step 02 (Second 70 Minutes) Students will engage in a structured debate discussing the importance of prevention versus cure in managing pediatric dermatological conditions. This will be followed by group presentations of treatment protocols, justifying decisions with reference to *Siddha* texts and observed clinical relevance.
Assessment (Final 20 Minutes) Teacher will assess students based on the accuracy and clarity of group presentations, strength of arguments in the debate, and quality of documented treatment protocols. Evaluation will focus on practical applicability, understanding of *Siddha* management principles, and ability to integrate prevention into clinical care planning.

Experiential-Learning 7.3 : Classification, Clinical Reasoning, and Management in *Parangi Noi*

Total Duration of the Activities 3 Hours
Students will be introduced to four types of *Parangi Noi,* focusing on *Siddha*-based classification, symptoms, severity, and management strategies. Through simulated clinical encounters and group discussions, students will practice diagnosis, therapeutic planning, and effective patient communication. A structured debate will explore the strengths of internal vs. external therapies. Students will document their learning in a portfolio.
Instructions to Students (First 20 Minutes) Teacher will provide case descriptions and explain the *Siddha* classification of *Parangi Noi.* Students must review classical texts, engage in clinical simulations, participate in group discussions and debates, and maintain a portfolio documenting their analysis, reflections, and conclusions on both treatment strategies and communication practices.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will work in pairs to analyze case descriptions and conduct role-play simulations of clinical encounters following Mini-CEX guidelines. They will identify *thodam* dominance, suggest treatment options, and engage in peer discussions on *Siddha*-based interventions and patient communication.
Step 02 (Second 70 Minutes) Students will participate in a structured debate: "Is Internal Detoxification Superior to External Applications in Chronic Skin Disorders?" Teams will present evidence-based arguments and reflect on clinical outcomes. All findings, analyses, and reflections will be compiled into an individual portfolio.
Assessment (Final 20 Minutes) Teacher will assess students using Mini-CEX tools for simulated encounters, peer communication, and discussion performance. Debate contributions and the completeness, accuracy, and depth of each student's learning portfolio will be evaluated to gauge clinical understanding, communication skills, and reflective thinking.

Experiential-Learning 7.4 : Clinical Simulation and Debate on *Siddha* Management of *Ponni and Pilavai*

Total Duration of the Activities 3 Hours

Students will attend a clinical dermatology session focused on *Ponni and Pilavai* in pediatric patients. They will document symptom presentations using *Siddha* classification, simulate clinical encounters using Mini-CEX guidelines, and identify *kutram*-based *thodam* involvement. The session includes a structured debate on internal detoxification vs. external therapies and concludes with submission of an individual learning portfolio.
Instructions to Students (First 20 Minutes) Teacher will introduce the *Siddha* concepts of *Ponni and Pilavai,* guide students on observing *thodam* variations, and explain how to use Mini-CEX for clinical simulations. Students will participate in peer-led discussions, a structured debate, and compile personal portfolios with reflections on clinical and therapeutic insights.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe pediatric skin cases and work in pairs to simulate clinical assessments using Mini-CEX. They will document signs, identify *kutram* dominance, and propose *Siddha*-based therapeutic options. Peer discussion will reinforce diagnostic reasoning and patient communication strategies.
Step 02 (Second 70 Minutes) Students will engage in a structured debate—"Is Internal Detoxification Superior to External Applications in Chronic Skin Disorders?" Teams will present evidence, challenge counterpoints, and reach conclusions. Each student will document their takeaways, clinical reflections, and therapeutic insights in a structured learning portfolio.
Assessment (Final 20 Minutes) Teacher will assess student performance using Mini-CEX observation, quality of argumentation during the debate, and accuracy of therapeutic reasoning. Portfolios will be reviewed for reflection depth, application of *Siddha principles,* and integration of clinical and academic learning.

Experiential-Learning 7.5 : Textual Mapping and Clinical Insight: Literature Documentation on *Balakarappan*

Total Duration of the Activities 4 Hours
Students will conduct a structured literary documentation activity based on *Siddha* texts to extract and compare the classifications and symptomatology of *Balakarappan and Sengamaari Karappaan.* The activity includes a library-based reference session, group-level data consolidation, and individual report preparation, culminating in the submission of a structured academic report with charts and references.
Instructions to Students (First 30 Minutes) Teacher will guide students on accessing and interpreting classical Siddha references. Students must extract classifications, *thodam* involvement, and symptom descriptions of *Balakarappan* (18, 11, 10 types) and *Sengamaari Karappaan* (4 types), work collaboratively to cross-reference texts, and organize their findings into structured tables and summary reports.
Students' Activities (180 Minutes - 60 mins + 60 mins + 60 mins)
Step 01 (First 60 Minutes) Students will review *Siddha* pediatric dermatology textbooks and manuscripts to extract data related to classification and symptom descriptions of *Balakarappan and Sengamaari Karappaan.* They will highlight differences in types, seasonal influences, and *thodam* variations for further compilation.
Step 02 (Second 60 Minutes) Groups will compile extracted content into structured classification tables, identifying key patterns, classical terms, and diagnostic descriptors. They will analyze text-to-text variations and align findings with both historical understanding and practical clinical relevance.
Step 03 (Third 60 Minutes) Each student will prepare and submit a well-organized individual report that includes references, charts, and comparative analysis. Students will briefly present findings, highlighting unique interpretations, terminology gaps, and suggestions for institutional archiving or curriculum enrichment.
Assessment (Final 30 Minutes) Teacher will assess report completeness, classification accuracy, and clarity of documentation. Evaluation includes group collaboration, participation in cross-referencing, and quality of individual submissions. Peer reviews and teacher feedback will contribute to assessing analytical effort, source validation,

and institutional reporting relevance.

Experiential-Learning 7.6 : Clinical Observation and *Siddha* Management of Pediatric *Karappaan*

Total Duration of the Activities 3 Hours
Students will observe and assist in pediatric OPD/IPD settings where *Karappaan* cases are treated. They will actively participate in lesion assessment, *thodam* evaluation, preparation, and application of *Siddha* herbal formulations under supervision. Internal medicine planning and dietary counseling will also be observed. A case-based group discussion will reinforce diagnosis, management, preventive strategies, and patient counseling skills.
Instructions to Students (First 20 Minutes) Teacher will instruct students to attentively observe clinical signs, participate in herbal preparation and application under supervision, and document findings using the CRF format. Students are expected to engage in clinical discussions, justify therapeutic decisions, and focus on individualized follow-up care strategies.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe and assist in the clinical evaluation of at least two pediatric *Karappaan* cases, documenting lesion morphology, *thodam* involvement, and prescribed treatments. Students will help prepare herbal pastes or oils and participate in their topical application under teacher supervision.
Step 02 (Second 70 Minutes) Students will engage in a case-based group discussion, presenting their documented cases, explaining *Siddha* therapeutic choices, expected prognosis, and follow-up care. Emphasis will be placed on understanding preventive strategies and improving patient communication skills during pediatric consultations.
Assessment (Final 20 Minutes) Teacher will assess students based on active participation during clinical exposure, performance during therapy preparation using Mini-CEX, quality of case documentation in CRFs, and peer interaction during discussions. Clinical observation and peer feedback will contribute to evaluating engagement, diagnostic reasoning, and therapy application skills.

Experiential-Learning 7.7 : Literary Review and Documentation of *Kapaala Kuttam,* Pediatric *Kuttam, and Mahaa Kuttam*

Total Duration of the Activities 3 Hours
Students will conduct a structured literary review by visiting the institutional library and *Siddha* manuscript collections. They will extract and document classifications, *thodam* involvement, symptomatology, and traditional terms related to *Kapaala Kuttam,* general pediatric *Kuttam,* and *Mahaa Kuttam.* Findings will be organized into individual annotated reports and compiled into group reference documents with visual charts and comparative tables.
Instructions to Students (First 20 Minutes) Teacher will guide students on accessing *Siddha* pediatric texts and classical manuscripts. Students must document classification types, definitions, symptomatology, and dosha dominance for *Kuttam* conditions. All findings should be systematically organized with proper references, annotated tables, and traditional term cross-referencing for report submission.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will conduct a focused literature review, extracting key points from classical *Siddha* references about *Kapaala Kuttam,* Pediatric *Kuttam, and Mahaa Kuttam.* They will highlight textual variations, symptom profiles, and traditional disease nomenclature for further compilation.
Step 02 (Second 70 Minutes) Students will organize extracted data into a structured report with annotated charts and cross-referenced tables. They will participate in peer

sharing to verify the completeness of findings and finalize both individual assignments and a group compilation document for academic archiving and discussion.
Assessment (Final 20 Minutes) Teacher will assess the thoroughness and accuracy of literature extraction, quality and structure of the compiled report, and clarity of classical term mapping. Evaluation will include peer feedback and review of individual and group submissions based on a rubric assessing documentation, critical analysis, and reference integration.

Experiential-Learning 7.8 : Clinical Exposure and Application of *Siddha* Therapies for *Kapaala Kuttam and Mahaakuttam*

Total Duration of the Activities 3 Hours
Students will be posted in pediatric dermatology OPD/IPD units to observe and assist in the application of *Siddha* therapies prescribed for *Kapaala Kuttam and Mahaakuttam.* These include herbal *poochu*, medicated *thylam*, and internal detox remedies. Students will document lesion patterns, therapy responses, and participate in case-based discussions for treatment analysis and personalized care understanding.
Instructions to Students (First 20 Minutes) Teacher will guide students to observe each step of therapy carefully, assist with external applications under supervision, and follow hygiene protocols. Students must record symptoms, *thodam* relevance, applied treatments, and patient responses. Active participation in group discussions and therapy review is expected.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will assist in applying *Siddha poochu and thylams* to pediatric patients under supervision. They will document lesion type, application method, hygiene practices, and initial healing responses. Emphasis will be placed on observing changes and adjusting techniques per *kuttram* dominance.
Step 02 (Second 70 Minutes) Students will engage in case discussions focused on internal treatment rationale and patient-specific interventions. They will conduct peer observations to provide constructive feedback on therapy administration and will update clinical logs with treatment progression notes and *thodam* interpretations.
Assessment (Final 20 Minutes) Teacher will assess student performance using Mini-CEX, practical checklists, and peer observation reports. Emphasis will be on proper technique, patient communication, hygiene, and real-time clinical engagement. Students will also submit a reflective log entry describing treatment outcomes and personal learning experiences.

Modular Assessment

Assessment method	**Hour**
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 6C. **Section A** This 25 marks assessment evaluates students' diagnostic understanding and clinical clarity in pediatric skin disorders such as *Vitharpam, Vaarppu, Parangi, Ponni, and Pilavai*. A word puzzle tests recall of *Siddha* classifications, symptoms, and treatments. A practical viva assesses *thodam* reasoning, therapeutic planning, and the student's ability to communicate care strategies effectively. Instructions to Students: Students will complete a puzzle involving key terms from the modules and participate in a practical viva. Recall classifications, humour influences, clinical features, and *Siddha* treatments for pediatric skin diseases. In the viva, clearly explain symptom interpretations and justify your	4

therapeutic decisions. Reference materials are not permitted.
Instructions to Teachers: Prepare a word puzzle with terms from M7.U1 and M7.U2. During viva, assess student responses on classification accuracy, *thodam* correlation, treatment planning, and communication. Use a structured rubric to ensure uniform evaluation. The focus should be on the integration of clinical reasoning and *Siddha* principles in pediatric dermatology.
Mark Distribution: The total marks for this assessment are 25. Puzzle Activity carries 8 marks for recalling key terms, classifications, and *thodam* associations. Symptom Analysis and *Siddha* Diagnostic Reasoning is allotted 6 marks, Therapeutic Explanation receives 6 marks, and Communication Clarity and Confidence in Viva is awarded the remaining 5 marks.
&
Section B - This 25-mark assessment presents clinical scenarios involving *Baala Karappaan/ Kuttam* disorders. Students must analyze lesion features, classify subtypes, evaluate humour imbalances, and propose individualized *Siddha* treatments. Emphasis is on practical decision-making, symptom comparison, and integrating internal and external therapies along with preventive dermatological care in pediatrics.
Instructions to Students: Students will be given a pediatric skin condition scenario from *Baala Karappaan types/ Kuttam* types. Classify the type, describe associated symptoms, identify humour involvement, and propose internal/external *Siddha* therapies with dietary recommendations. Include recurrence prevention strategies and follow-up advice. No reference material is permitted. Present students answers with clinical clarity.
Instructions to Teachers: Prepare a assessment details from M7.U3 and M7.U4. Provide a case involving skin lesions with signs like itching, rash, or scalp involvement. Assess students on classification accuracy, pathophysiological understanding, appropriate *Siddha* management planning, and justification of their therapeutic choices. Use structured rubrics covering clinical reasoning, application of *Siddha* principles, and student communication.
Mark Distribution: The total marks for this patient management problem-based assessment are 25. Case Analysis and Type Classification carries 7 marks, Symptom Interpretation and hmour Reasoning is allotted 6 marks, Therapeutic Plan (Internal/External/Dietary) receives 6 marks, while Preventive Measures and Follow-Up Strategy and Justification and Communication are awarded 3 marks each.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

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 8 : ????????? ??????? ??????? ????? ????????? ???????? - Kudarpuzhu Noigal Matrum Parpala Noigalin Thoguppu (Worm infestations and other Pediatric disorders)

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

Describe classifications of *Vippuruthi, Sira Rogam, and Kudarpuzhu.*
Identify symptomatology of pediatric malignancies, toxin disorders, and parasites.
Differentiate *Sira Rogam and Amirtha Rogam* using *Siddha* diagnostic principles.
Apply Siddha therapies in managing neurological and parasitic disorders.
Analyze case-based presentations of *Paatha Rogam* and foot skin diseases.
Formulate treatment protocols for pediatric worm and brain-related disorders.

M 8 Unit 1 ??????????, ??????? ??????? ?????????? - Vippuruthi, Viyarvai and Vishapaakam

8.1.1 Classification of *Vippuruthi* – Six types of *Vippuruthi* categorized by site, symptoms, and *thodam* origin including tumors, swellings, and systemic proliferative conditions in children. 8.1.2 Classification of *Viyarvai and Vishapaakam* – Three types each of *Viyarvai* (sweating disorders) and *Vishapaakam* (toxin-related disorders), focusing on metabolic imbalances, *thodam* derangement, and toxin manifestations in pediatric health. 8.1.3 Types of *Vippuruthi* and Symptomatology – Includes ulcerative, nodular, and proliferative growths with specific symptom profiles and disease progression analyzed using Siddha nosological frameworks and diagnostic methods. 8.1.4 Siddha Treatments for *Vippuruthi, Viyarvai, and Vishapaakam* – Internal and external Siddha interventions and rejuvenative therapies aimed at *thodam* correction and immune enhancement. 8.1.5 Case-Based Learning for Pediatric Malignancy and Toxin Disorders – Real-life and simulated pediatric cases for practical understanding of diagnosis, Siddha therapy planning, monitoring, and outcome assessment.

References: 61,85,86

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Discuss Vippuruthi, Viyarvai, Vishapaakam types, symptoms, thodam roles, and early Siddha diagnosis.	1	Lecture	CC	Knows-how	L&GD,L &PPT

CO1,CO3,CO5	Analyze types of *Vippuruthi* and plan *Siddha*-based management.	3	Practical Training 8.1	CAN	Knows-how	D-BED,CBL,SIM
CO2,CO4,CO7	Document *Siddha* textual descriptions and classifications of selected pediatric disorders	3	Experiential-Learning 8.1	CE	Does	SDL,TPW,TBL,LS
CO1,CO2,CO3	Examine Siddha treatments for Vippuruthi, Viyarvai, Vishapaakam using herbs, detox, rejuvenation, and thodam balance.	1	Lecture	CAN	Shows-how	L&GD,L&PPT
CO1,CO3,CO7	Apply *Siddha* concepts to identify and manage *Vishapaakam* in pediatrics	2	Practical Training 8.2	CAP	Shows-how	CBL,D-BED,SIM
CO1,CO3,CO4	Demonstrate *Siddha* therapeutic applications for Pediatric *Vippuruthi, Viyarvai, and Vishapaakam*	2	Experiential-Learning 8.2	PSY-GUD	Does	D-BED,CBL,PAL

M 8 Unit 2 ??? ????? ??????? ?????? ????? -Sira Rogam and Amirtha Rogam

8.2.1 Classification of *Sira Rogam* – Nineteen types of pediatric *Sira Rogam* covering seizures, tremors, paralysis, spasms, and neuromotor disorders classified by *thodam* dominance, clinical features, and progression stages. 8.2.2 Classification of *Amirtha Rogam* – Two major types of *Amirtha Rogam* involving pediatric brain developmental delays and cognitive dysfunctions, with classification based on etiology, *kutra* variation, and neurodevelopmental impairment. 8.2.3 Siddha Treatment for *Sira and Amirtha Rogam* – Siddha therapeutic strategies including internal formulations,*external approaches, Varmam,* dietary regulation, and supportive neuro-rehabilitative care. 8.2.4 Case-Based Learning on *Sira Rogam and Amirtha Rogam* – Practical pediatric neurological case discussions integrating Siddha diagnostics, individualized treatment protocols, and monitoring techniques for clinical outcome evaluation. 8.2.5 Preventive and Supportive Care in Pediatric Neuro Disorders – Emphasis on preventive Siddha regimens, early screening, lifestyle adjustments, and family education for improving long-term neurological health in children.

References: 83

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Examine Sira, Amirtha Rogam types, thodam roles, and pediatric neurological symptoms like seizures, delays.	1	Lecture	CAN	Knows-how	L,L&GD

CO1,CO3,CO7	Analyze clinical features of *Sira Rogam* and apply its management.	3	Practical Training 8.3	CAN	Shows-how	CBL,SIM ,D-BED
CO1,CO3,CO7	Apply *Siddha principles* to identify and manage *Amirtharogam.*	2	Practical Training 8.4	CAP	Shows-how	D-BED,C BL,SIM
CO1,CO2,CO3	Explore Siddha protocols for Sira, Amirtha Rogam using Varmam, oils, and herbal decoctions in children.	1	Lecture	CK	Know	DSN,D,L &PPT
CO1,CO2,CO3	Apply diagnosis and management skills for Sira and Amirtha Rogam in pediatric neurological care.	1	Lecture	CAP	Knows-how	L&GD,L &PPT
CO1,CO4,CO6	Analyze and classify *Paatha Rogam* types to improve clinical diagnosis and care	3	Experiential-Learning 8.3	AFT-VAL	Does	BL,PL,D-M,CBL
CO1,CO3,CO6	Demonstrate *Siddha* therapies and communicate caregiver support strategies for *Amirtha Rogam*	3	Experiential-Learning 8.4	PSY-GUD	Does	D,PAL,R P

M 8 Unit 3 ??? ????? - Paatha Rogam

8.3.1 Classification of *Paatha Rogam* – Ten types of foot-related disorders in children, involving pain, swelling, gait disturbances, and localized skin changes, classified based on *thodam* imbalances and Siddha nosology. 8.3.2 Classification of *Paatha Silerpanam* – Detailed classification into 21, 4, and 20 types of *Paatha Silerpanam*, focusing on lesion morphology, distribution, intensity, and associated systemic symptoms relevant to Siddha diagnosis. 8.3.3 Siddha Therapeutics for *Paatha* Disorders – Internal and external treatment protocols and foot-specific regimens, emphasizing inflammation reduction, tissue repair, and *thodam* correction. 8.3.4 Case-Based Clinical Learning on *Paatha Rogam* – Structured pediatric foot disorder case studies for developing diagnostic accuracy, therapy selection, and monitoring effectiveness using traditional Siddha approaches. 8.3.5 Preventive and Supportive Foot Care in Pediatrics – Guidelines on preventive care, footwear hygiene, dietary practices, and seasonal regimens for minimizing recurrence and enhancing pediatric foot health.

References: 86

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO7	Analyze signs of *Paadha Rogam* and plan *Siddha*-based treatment.	3	Practical Training 8.5	CAN	Shows-how	SIM,D-BED,CB

						L
CO1,CO3,CO7	Analyze *Paatha Silerpanam* types based on *Siddha* clinical classifications.	2	Practical Training 8.6	CAN	Shows-how	D-BED,SIM,CBL
CO1,CO2,CO3	Identify Paatha Rogam, Paatha Silerpanam types, symptoms, thodam roles, and progression in pediatrics.	1	Lecture	CAN	Knows-how	L&GD,L&PPT
CO1,CO2,CO3	Describe Siddha treatments and diet for Paatha Rogam with case-based learning in pediatric care.	1	Lecture	CS	Knows-how	L&PPT,L&GD
CO2,CO3,CO6	Analyze and critically evaluate *Siddha* classifications of pediatric foot disorders	3	Experiential-Learning 8.5	CAN	Does	DIS,PER,RLE,CBL
CO2,CO3,CO4	Apply *Siddha* diagnostic and therapeutic methods for pediatric foot disorders through clinical observation and simulation	3	Experiential-Learning 8.6	AFT-RES	Does	DIS,SIM,CBL,D

M 8 Unit 4 ????????? ??????? - Kudarpuzhu Noigal

8.4.1 Classification of *Kudarpuzhu* – Seven types of intestinal worm infestations in children based on location, symptoms like abdominal pain, diarrhea, bloating, and *thodam* predominance. 8.4.2 Classification of *Kirumi* – Four types of parasitic infections focusing on transmission, systemic manifestations, and their Siddha-based clinical identification. 8.4.3 Description of *Masari, Keeri, and Irai Noi* – Worm-specific disorders with life cycle details and associated symptoms, including *Masari, Keeri* and *Irai Noi*. 8.4.4 Comparative Symptoms of *Masari, Keeri, and Irai* – Differentiation of clinical features among *Masari, Keeri, and Irai* infestations, supporting accurate diagnosis and individualized treatment. 8.4.5 Siddha Treatments for *Kudarpuzhu and Kirumi* – Internal deworming formulations, dietary regulations, preventive regimens, and follow-up strategies for effective management and prevention of recurrence.

References: 3,60,83,87,91,117

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4	Differentiate types of *Kudarpuzhu* and *Kirumi* using clinical *Siddha* parameters.	3	Practical Training 8.7	CAN	Shows-how	SIM,CBL,PL,D-BED
CO1,CO3,CO4	Apply *Siddha principles* to identify and manage pediatric worm infestations.	2	Practical	CAP	Shows-	CBL,D-

			Training 8.8		how	BED
CO1,CO3,CO4	Analyze and manage pediatric intestinal worm infestations using *Siddha* diagnostic and therapeutic frameworks	3	Experiential-Learning 8.7	CAN	Does	SIM,DIS,D,CBL
CO1,CO3,CO6	Identify, document, and manage pediatric *Kirumi* infections using *Siddha* diagnostic and therapeutic principles	3	Experiential-Learning 8.8	PSY-GUD	Does	PSM,CBL,D,TBL
CO1,CO3,CO6	Differentiate *Masari, Keeri, and Irai* worm infections using *Siddha* clinical principles	3	Experiential-Learning 8.9	CAN	Does	D,PAL,CBL,RLE
CO1,CO2,CO3	Discuss Kudarpuzhu, Kirumi types, symptoms, and thodam-based personalized management in pediatric patients.	1	Lecture	CC	Knows-how	DIS,L&GD,L
CO1,CO2,CO3	Compare and discuss Masari, Keeri, Irai Noi symptoms for accurate Siddha diagnosis and pediatric worm treatment planning.	1	Lecture	CAN	Knows-how	L&GD,DIS,CBL
CO1,CO2,CO3	Describe *Siddha*-based deworming treatments, including herbal remedies, dietary management, and preventive care strategies, to effectively eliminate worm infestations and prevent recurrence in pediatric patients.	1	Lecture	CAN	Knows-how	DIS,CBL,PL

Practical Training Activity

Practical Training 8.1 : Clinical Identification and *Siddha* Management of *Vippuruthi*

Total Duration of the Activities: 3 Hours

This session introduces students to pediatric *Vippuruthi*, covering benign proliferations, malignant lesions, and systemic overgrowths. Using *Siddha principles*, students will examine humoural imbalances, identify diagnostic features, and assess progression stages. Clinical scenarios and demonstrations will support hands-on learning in lesion identification, prognosis evaluation, and formulation of *Siddha*-based therapeutic plans.

Instructions to Students (First 30 Minutes): Teacher will demonstrate pediatric cases of *Vippuruthi* using simulations or bedside observations. Students should examine lesion appearance, progression rate, and *kutram* involvement. Prepare to differentiate benign versus malignant types and begin drafting diagnosis and treatment strategies based on *Siddha* classical references and disease classification.

Students activities

Step 01 (First 60 Minutes): Students will observe or examine real/simulated pediatric cases of *Vippuruthi*. They will record key clinical signs such as overgrowth location, tenderness, discharge, and systemic symptoms. Students will identify whether the lesion is benign or malignant and classify the case using *Siddha* nosology and humoural

assessment.
Step 02 (Next 60 Minutes): Based on clinical findings, students will develop *Siddha* treatment plans. Plans will include internal medicines, *external therapies, paatiyam,* and preventive guidelines. Students will collaborate in groups to prepare a diagnostic summary and treatment protocol, and then present their *Siddha* therapeutic reasoning for group critique and teacher feedback.
Assessment (Final 30 Minutes): Teacher will evaluate student participation through case discussions, classification accuracy, and *Siddha*-based treatment proposals. Practical viva will test understanding of *Vippuruthi* types, *kutram* involvement, and rationale for selected therapies. Observation checklists will assess student performance during case examinations and presentation of personalized management strategies.

Practical Training 8.2 : Clinical Assessment and *Siddha* Management of *Vishapaakam*

Total Duration of the Activities: 2 Hours
This practical introduces students to pediatric *Vishapaakam,* classified into *Aamai, Kaasu, and Virundhi* types. Using simulation and bedside demonstrations, students will identify toxin-related symptoms, humor disturbances, and apply *Siddha principles* in treatment planning. Detoxification methods, safe internal formulations, and dietary regimens will be explored through case-based analysis and therapeutic discussions.
Instructions to Students (First 15 Minutes): Teacher will present clinical demonstrations of *Vishapaakam* types using simulated and bedside cases. Students must observe signs of systemic toxicity and humor imbalance. They will review classical *Siddha* indicators and prepare to classify the condition and propose child-specific *Siddha* interventions, with emphasis on detoxification and preventive care.
Students activities
Step 01 (First 45 Minutes): Students will analyze simulated or bedside pediatric cases with suspected *Vishapaakam*. Under teacher supervision, they will perform history-taking and physical observation. Students will document findings, classify the type as *Aamai, Kaasu, or Virundhi,* and correlate symptoms with *thodam* disturbances. A draft diagnosis will be recorded for peer discussion.
Step 02 (Next 45 Minutes): In small groups, students will design *Siddha*-based treatment strategies. Plans will include herbal detoxifiers, supportive internal medicines, external therapies, and *paatiyam* recommendations. Each team will discuss their diagnosis and proposed therapies, highlighting symptom management and long-term prevention based on classical *Siddha* references and clinical presentation.
Assessment (Final 15 Minutes): Teacher will assess students during simulation and bedside tasks using a structured checklist. Practical viva will evaluate knowledge of *Vishapaakam* types, humor analysis, and treatment logic. Group discussion performance will be reviewed to ensure clinical accuracy, clarity in presentation, and application of *Siddha* pediatric detoxification principles.

Practical Training 8.3 : Clinical Diagnosis and *Siddha* Management of *Sira Rogam* in Pediatric Patients

Total Duration of the Activities: 3 Hours
This clinical session focuses on pediatric *Sira Rogam,* which involves disruptions in nerve or vascular flow. Students will observe bedside and simulation-based cases showing tremors, swelling, or compression symptoms. They will classify the condition using *Siddha* nosology, assess humoural dominance, and propose *Siddha*-based

interventions such as *Ottradam, Thylam, or Kizhi.*
Instructions to Students (First 30 Minutes): Teacher will explain the *Siddha* classification of *Sira Rogam* and demonstrate signs in pediatric cases. Students should focus on symptoms like rigidity, swelling, or limb weakness. They will take notes and begin analyzing how these clinical signs relate to *kutram* disturbance and *Siddha* diagnostic logic for treatment planning.
Students activities
Step 01 (First 60 Minutes): Students will participate in clinical discussions and simulations, observing symptoms of pediatric *Sira Rogam.* They will document signs, identify affected siras, and classify the disorder based on *Siddha principles.* Humoural analysis will be conducted using *Naadi and Envagai Thervugal* to support diagnostic accuracy and staging.
Step 02 (Next 60 Minutes): Students will practice case examination on simulated or real pediatric patients. They will propose *Siddha* treatment protocols including external therapies like *Thylam, Ottradam, and Kizhi,* supported by internal medicines. Each student group will prepare a case-based report outlining findings, diagnosis, *thodam* involvement, and planned therapy.
Assessment (Final 30 Minutes): Teacher will assess clinical performance using observation checklists during bedside examination and group presentations. Practical viva will evaluate students' understanding of *Siddha* pathology, classification accuracy, and treatment selection. Case reports will be reviewed for clarity, logical reasoning, and adherence to *Siddha* therapeutic principles for pediatric *Sira Rogam.*

Practical Training 8.4 : Clinical Recognition and *Siddha* Management of Pediatric *Amirtharogam*

Total Duration of the Activities: 2 Hours
This clinical practical introduces *Amirtharogam,* a rare yet critical pediatric condition in *Siddha* medicine. Through bedside or simulated cases, students will identify systemic signs such as fatigue, altered complexion, and growth failure. *Siddha* diagnostic tools such as *Naadi and Ennvagai Thervugal* will be applied to design personalized interventions rooted in classical *Siddha texts.*
Instructions to Students (First 30 Minutes): Teacher will demonstrate pediatric cases with signs of *Amirtharogam.* Students must observe key symptoms, analyze *Naadi,* and document *kutram* involvement. They should focus on early recognition markers and prepare for discussion on *Siddha*-based management options using rejuvenative, dietary, and internal therapy protocols derived from classical frameworks.
Students activities (Next 60 mins- 30 mins + 30 mins)
Step 01 (First 30 Minutes): Students will assess real or simulated cases showing clinical signs of *Amirtharogam.* They will record systemic symptoms, evaluate pulse, and apply *Siddha* nosology for humour classification. Group discussions will include differential diagnosis and comparison with other chronic pediatric syndromes, emphasizing *Siddha* markers such as complexion and energy depletion.
Step 02 (Next 30 Minutes): Students will create a *Siddha*-based treatment plan using internal rejuvenators, dietary regimens *(Paatiyam),* and supportive therapies tailored to *kutram* and disease stage. Each group will present their findings, justifying therapeutic selections with reference to *Amirtharogam texts, thodam* balance, and expected prognosis in pediatric *Siddha* practice.
Assessment (Final 30 Minutes): Teacher will evaluate case analysis and presentation clarity. Viva will assess the student’s ability to interpret clinical signs and plan appropriate *Siddha* treatments. Observation checklists will document participation, diagnostic accuracy, and personalized intervention planning. Emphasis will be on early

recognition, therapeutic logic, and alignment with classical *Siddha* knowledge.

Practical Training 8.5 : Clinical Identification and *Siddha*-Based Management of Pediatric *Paadha Rogam*

Total Duration of the Activities: 3 Hours
This practical session introduces *Paadha Rogam,* a group of *Siddha*-classified foot and lower limb disorders in children. Students will assess symptoms such as swelling, limping, and deformities through clinical or simulated cases. *Siddha* diagnostic techniques, including pulse examination and humor assessment, will guide the formulation of appropriate treatment protocols.
Instructions to Students (First 30 Minutes): Teacher will demonstrate clinical signs of *Paadha Rogam* using real or simulated cases. Students should examine posture, gait, pain sites, and color changes. They will apply *Siddha* diagnostic principles to assess *vatha* dominance or structural abnormalities and begin formulating a differential diagnosis and treatment plan for discussion.
Students activities
Step 01 (First 60 Minutes): Students will work individually or in pairs to examine assigned cases with suspected *Paadha Rogam.* Using case templates, they will document key symptoms, humor imbalance, and structural involvement. Observations will focus on pulse variation, tenderness, deformity, and walking patterns to aid in clinical *Siddha* classification.
Step 02 (Next 60 Minutes): Each student or group will prepare a case summary and propose a *Siddha* treatment plan. This will include internal herbal remedies, *external therapies* such as *Ottradam* or medicated leg fomentation, and *paatiyam*. They will present their findings and plan to peers and teacher for discussion and refinement.
Assessment (Final 30 Minutes): Teacher will evaluate student performance during case examination and presentations. Checklists will be used to assess diagnostic accuracy, treatment planning, and communication. Practical viva will test knowledge of *Paadha Rogam* classification, humor interpretation, and clinical reasoning to ensure readiness for real-world pediatric application.

Practical Training 8.6 : Clinical Examination and *Siddha* Management of *Paatha Silerpanam*

Total Duration of the Activities: 2 Hours
This clinical practical introduces students to the *Siddha* classification of *Paatha Silerpanam* (21, 4, and 20 types). Students will assess foot lesions in pediatric cases through observation and pattern recognition. They will classify the case, identify *kutram* involvement, and propose *Siddha* treatments, including internal medicines, topical formulations, and *paatiyam* recommendations.
Instructions to Students (First 30 Minutes): Teacher will present clinical signs and classification logic for *Paatha Silerpanam*. Students should observe lesion depth, discharge, dryness, and scaling patterns. They must document clinical features using *Siddha* diagnostic tools and prepare to correlate with subtype classifications while forming personalized therapeutic plans for pediatric foot disorders.
Students activities (Next 60 mins - 30 mins + 30 mins)
Step 01 (First 30 Minutes): Students will work in pairs to examine simulated or actual pediatric patients with signs of *Paatha Silerpanam*. They will record observations and use visual markers to classify lesions under the 21, 4, or 20 subtypes. *Mukkutram* dominance and systemic associations will be documented alongside symptom

interpretation.
Step 02 (Next 30 Minutes): Students will design individualized *Siddha*-based treatment plans. These will include *external therapies* such as medicated oils or *poochu,* internal medicines for *thodam* correction, and specific dietary modifications. Clinical reasoning will be discussed in peer groups to justify diagnosis and management based on *Siddha* classical sources.
Assessment (Final 30 Minutes): Teacher will assess students using observation checklists and evaluate classification accuracy and treatment planning during peer discussions. A short viva will test knowledge of subtype differentiation, kutram analysis, and appropriateness of *Siddha* therapies. Focus will be on clinical logic, documentation clarity, and patient-centered application.

Practical Training 8.7 : Diagnosis and *Siddha* Management of Pediatric *Kudarpuzhu and Kirumi* Disorders

Total Duration of the Activities: 3 Hours
This practical session introduces students to *Kudarpuzhu* (7 types) and *Kirumi* (4 types) in pediatric practice. Using simulation cases, students will identify clinical symptoms such as diarrhea, bloating, and itching, classify the conditions using *Siddha* nosology, and design individualized treatment plans including internal herbal medicines, deworming therapies, diet regulation, and preventive hygiene strategies.
Instructions to Students (First 30 Minutes): Teacher will explain the classification and clinical markers of *Kudarpuzhu and Kirumi*. Students must observe case simulations and treatment demonstrations carefully. They will take notes on symptom presentation, *kutram*-based diagnostic cues, and standard *Siddha* treatments to prepare for hands-on analysis and group work in the following activities.
Students activities
Step 01 (First 60 Minutes): Students will analyze pediatric cases from simulated records, identifying symptoms of intestinal infestation. They will document humor dominance and affected sites using *Siddha* terms. Key signs like perianal itching *(Masari),* bloating *(Keeri),* and weakness *(Irai)* will be linked with nosological classification for diagnostic clarity.
Step 02 (Next 60 Minutes): Students will participate in simulations demonstrating preparation and usage of *Siddha* internal and external remedies for deworming. Each group will then create a diagnostic and treatment flowchart summarizing *Kudarpuzhu and Kirumi* types, *kutram* features, and interventions. Presentations will follow for peer and teacher feedback.
Assessment (Final 30 Minutes): Teacher will assess students through structured observation during simulations and group presentations. Diagnostic flowcharts will be reviewed for accuracy, completeness, and clarity. A practical viva will test students' ability to classify disorders, interpret *kutram* imbalances, and justify individualized *Siddha* treatments for pediatric parasitic and intestinal disorders.

Practical Training 8.8 : Clinical Observation and *Siddha* Management of *Masari, Keeri, and Irai Noi*

Total Duration of the Activities: 2 Hours
This clinical practical trains students to recognize and manage pediatric worm infestations: *Masari* (threadworm), *Keeri* (roundworm), and *Irai* (tapeworm). Students will observe cases in OPD/IPD or simulations, document symptoms, and apply *Siddha* diagnostic logic. Emphasis is placed on *thodam* correlation, herbal therapies, and

preventive dietary and hygiene measures.
Instructions to Students (First 30 Minutes): Teacher will guide students in observing pediatric OPD/IPD cases with suspected worm infestations. Students must focus on symptoms like perianal itching, bloating, irritability, and nutritional deficiency. They will correlate clinical signs with *kutram* involvement and document therapeutic approaches including *Siddha* internal formulations and dietary adjustments for deworming.
Students activities (Next 60 mins - 30 mins + 30 mins)
Step 01 (First 30 Minutes): Students will observe real or simulated pediatric cases of *Masari, Keeri, and Irai*. They will document signs, *thodam* interpretations, and complications. Students will also discuss worm life cycles, risk factors, hygiene issues, and how these influence *Siddha* diagnosis and individualized care planning.
Step 02 (Next 30 Minutes): In group discussion, students will analyze the observed cases and propose appropriate *Siddha* management strategies. This includes internal medicines like *Nilavembu Kudineer, Vidanga Choornam*, external cleansing techniques, and *Paatiyam.* Groups will reflect on follow-up strategies, prevention, and challenges in pediatric parasite management within clinical settings.
Assessment (Final 30 Minutes): Teacher will evaluate students using structured observation checklists, oral responses during case-based discussions, and a short viva. Assessment will focus on diagnostic understanding, treatment logic, *kutram* interpretation, and ability to contextualize *Siddha* regimens in practical pediatric care scenarios.

Experiential learning Activity

Experiential-Learning 8.1 : Literary Compilation of *Vippuruthi, Viyarvai, and Vishapaakam* from Classical *Siddha* Texts

Total Duration of the Activities 3 Hours
Students will explore classical *Siddha* texts such as *Agasthiyar Vaidhya Vallathi, Theraiyar Maha Karisal, and Yugi Vaidhya Chinthamani* to extract information on *Vippuruthi* (six types), *Viyarvai* (three types), and *Vishapaakam* (three types). They will compile data on definitions, classifications, *kutram*-based interpretations, and symptomatic descriptions. The findings will be organized into structured reports for archival contribution and institutional case documentation.
Instructions to Students (First 20 Minutes) Teacher will explain how to identify relevant chapters in primary *Siddha* texts. Students should extract data on disease classification, *thodam* involvement, and clinical presentation. Emphasis will be placed on citing sources accurately and organizing findings under consistent headings for future academic or archival use.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will perform a focused literature search from selected *Siddha* texts and digital archives. They will extract references, shlokas, and descriptions for *Vippuruthi, Viyarvai, and Vishapaakam*. Notes should include symptomatology, causative factors, and *kutram* variations.
Step 02 (Second 70 Minutes) Students will compile their findings into structured documents under standardized headings such as classification, *kutram* involvement, symptoms, and classical references. They will prepare comparative summaries, highlighting intertextual differences and aligning with current understanding in pediatric *Siddha practice.*
Assessment (Final 20 Minutes) Teacher will assess documentation quality, depth of textual references, and accuracy of classifications. Evaluation will include submission of structured reports, peer-reviewed compilation contributions, and a short critical reading paper comparing classical variations. Citation integrity, clarity, and presentation structure will be key criteria.

Experiential-Learning 8.2 : Clinical Insights into *Siddha* Management of Pediatric V*ippuruthi, Viyarvai, and Vishapaakam*

Total Duration of the Activities 2 Hours
Students will be introduced to real or simulated pediatric patients presenting with *Vippuruthi* (tumor growths), *Viyarvai* (sweating disorders), and *Vishapaakam* (toxin overload). Under teacher supervision, they will observe *Siddha* therapeutic protocols involving internal medications, external applications, and detoxification practices. A post-observation group discussion will facilitate clinical reasoning and reflective learning.
Instructions to Students (First 15 Minutes) Teacher will brief students on the clinical objectives, signs to observe, and proper behavior in pediatric settings. Students must note internal and external therapies, recognize *kutram* imbalances, and analyze dosage modifications and rationale behind *Siddha* interventions for each observed case.
Students' Activities (90 Minutes)
Step 01 (First 60 Minutes) Students will shadow clinicians during *Siddha* evaluation and treatment of pediatric patients. They will document presenting symptoms,*thodam* classifications, internal and external therapeutic measures, and observed patient responses. Special focus should be given to case variations and rationale for formulation selection.
Step 02 (Next 30 Minutes) Students will present their observations during a peer discussion session, guided by the teacher. Each student will analyze therapeutic decisions and dosage reasoning, compare responses, and explore alignment with *Siddha* clinical frameworks. Clinical notes will be submitted for feedback.
Assessment (Final 15 Minutes) Teacher will assess students using Mini-CEX and DOPS to evaluate participation, procedural understanding, and clinical documentation. Reflective observation notes will also be reviewed for insightfulness, accuracy, and application of *Siddha* concepts in pediatric care contexts.

Experiential-Learning 8.3 : Group-Based Clinical Analysis and Identification of *Paatha Rogam* Types

Total Duration of the Activities 3 Hours
Students will be introduced to the ten types of *Paatha Rogam* and their distinct clinical features. They will be divided into small groups and assigned specific types to study using clinical descriptions and reference images. Each group will analyze characteristic signs, summarize key points, and present how accurate classification aids in better patient care outcomes. The session concludes with a practical identification exercise to reinforce learning.
Instructions to Students (First 20 Minutes) Teacher will introduce the ten types of *Paatha Rogam* and explain their specific features. Students must reflect on the role of accurate classification in *Siddha* diagnosis and management, collaborate with their groups to analyze assigned conditions, and prepare to present findings and participate in a practical identification session.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will work in groups to study clinical descriptions and images of their assigned *Paatha Rogam* type. They will identify unique clinical markers, *kutram* associations, and treatment relevance, preparing a summary that emphasizes the importance of precise classification for effective diagnosis and care.
Step 02 (Second 70 Minutes) Each group will present their findings to the class, explaining symptom patterns, diagnostic points, and clinical significance. Students will then participate in a practical identification exercise using case images or scenarios to test recognition skills. Peer feedback will be provided for each presentation and exercise.
Assessment (Final 20 Minutes) Teacher will assess students based on the clarity and clinical accuracy of group presentations, performance in the practical identification exercise, and peer feedback. Evaluation will emphasize correct classification, application of *Siddha* diagnostic principles, and the ability to connect diagnosis to improved

patient care outcomes.

Experiential-Learning 8.4 : Clinical Demonstration and Communication Role-Play for Pediatric *Amirtha Rogam*

Total Duration of the Activities 3 Hours
Students will be introduced to *Amirtha Rogam*, a *Siddha*-defined pediatric neurological disorder with two major classifications involving cognitive delays. The session begins with a clinical discussion, followed by demonstrations of *Varmam* therapy and external oil applications. Students will also role-play practitioner-caregiver communication, focusing on treatment goals and home care counseling using culturally sensitive approaches.
Instructions to Students (First 20 Minutes) Teacher will explain the *Siddha* classifications, signs, and diagnostic considerations for *Amirtha Rogam.* Students must actively observe the demonstration of *Varmam therapy and external therapies.* They are expected to practice clinical techniques with care and compassion, and role-play caregiver counseling sessions with clarity and empathy.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe and participate in teacher-guided demonstrations of *Siddha Varmam* point stimulation and external oil therapy. They will practice techniques on peers or models, ensuring accuracy, safety, and understanding of therapeutic indications for pediatric neurological support.
Step 02 (Second 70 Minutes) Students will participate in role-play scenarios simulating real-world interactions with caregivers. Each student will explain the *Siddha* classification of *Amirtha Rogam*, present the treatment plan, and discuss emotional and practical home care support strategies, emphasizing compassionate communication.
Assessment (Final 20 Minutes) Teacher will assess clinical skills using DOPS checklists and communication skills through role-play evaluations. Students will be evaluated on accuracy of therapeutic techniques, empathy, clarity of caregiver interaction, and cultural sensitivity. Peer feedback and teacher observations will contribute to the final assessment.

Experiential-Learning 8.5 : Documentation of *Paatha Rogam and Paatha Silerpanam*

Total Duration of the Activities 3 Hours
Students will begin by analyzing classical and modern *Siddha* literature on *Paatha Rogam and Paatha Silerpanam.* Clinical videos showing pediatric cases will be reviewed, followed by focused discussions on *kuttram* involvement, symptom variations, and *Siddha* classifications. Students will engage in a structured debate evaluating the practical utility of the 21, 4, and 20-type classification systems. The session concludes with group presentations and submission of individual documentation reports.
Instructions to Students (First 20 Minutes) Teacher will introduce the session structure, provide an overview of *Paatha Rogam and Silerpanam* classifications, and guide students through the clinical videos. Each group will be assigned specific subtypes for detailed analysis, debate preparation, and presentation. Students must document findings and reflections systematically.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will watch clinical video excerpts and read assigned critical papers. They will engage in group discussions to analyze lesion features, progression patterns, and underlying *kuttram* influences. Students will start drafting debate notes and compile evidence-based insights for their assigned subtype.
Step 02 (Second 70 Minutes) Students will participate in a structured debate evaluating the relevance, clarity, and practical application of the 21, 4, and 20-type

classifications. Following the debate, each group will present findings, highlighting key diagnostic markers, case-based variations, and critical analysis. Individual documentation reports will be compiled and submitted.
Assessment (Final 20 Minutes) Teacher will assess students based on clarity and depth of group presentations, reasoning and engagement during debates, quality of literature analysis, and completeness of documentation reports. Assessment will emphasize clinical understanding, critical thinking, articulation of *Siddha* classification logic, and reflective documentation skills.

Experiential-Learning 8.6 : Clinical Case Management and *Siddha* Application for Pediatric Foot Disorders

Total Duration of the Activities 3 Hours
Students will engage in clinical case observation and supervised simulations related to *Paatha Rogam and Paatha Silerpanam* in pediatric practice. They will identify *kutram*-based influences, participate in therapeutic applications such as *thylam*, herbal soaks, and dietary guidance, and document their reflections. Students will discuss findings in small groups and propose follow-up strategies, reinforcing practical application of *Siddha principles.*
Instructions to Students (First 20 Minutes) Teacher will introduce *Siddha* classifications of *Paatha Rogam and Silerpanam* and explain objectives for clinical exposure and simulation. Students must observe pediatric patient cases carefully, participate in treatment procedures under supervision, practice empathy in caregiver interactions, and accurately document clinical findings and reflections.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe pediatric cases presenting with foot disorders, identify symptomatology, *kutram* dominance, and therapeutic needs. They will assist in diagnosis discussions and contribute to treatment planning under teacher guidance, focusing on practical clinical reasoning.
Step 02 (Second 70 Minutes) Students will perform simulations of *Siddha* treatments such as foot soak preparations, *thylam* application, and providing dietary counseling for pediatric patients. Individual case reflections will be documented, and findings will be presented and discussed in peer groups to strengthen clinical confidence and decision-making.
Assessment (Final 20 Minutes) Teacher will assess students through direct observation during simulations (Mini-CEX), case documentation accuracy, peer feedback in discussions, and responses during clinical questioning. Emphasis will be placed on demonstrating clinical confidence, correct *Siddha* application, empathetic communication, and systematic case reflections.

Experiential-Learning 8.7 : Clinical Observation and Treatment Simulation for Pediatric *Kudarpuzhu*

Total Duration of the Activities 3 Hours
Students will participate in a clinical session where they observe pediatric cases suspected of *Kudarpuzhu* (intestinal worm infestations). They will evaluate clinical signs, classify worm types based on *Siddha* descriptions, and propose suitable internal treatments, dietary advice, and preventive strategies. The session will conclude with simulated role-play presentations and collaborative documentation of treatment plans.
Instructions to Students (First 20 Minutes) Teacher will introduce *Siddha* classifications of *Kudarpuzhu*, focusing on characteristic symptoms, *mukutram* involvement, and traditional descriptions. Students must observe symptoms carefully during clinical exposure, classify cases appropriately, and prepare to present treatment and preventive

strategies based on *Siddha principles*.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe pediatric OPD/IPD cases with symptoms of intestinal worm infestation. They will classify cases according to *Siddha Kudarpuzhu* types, noting key clinical signs such as irritability, bloating, diarrhea, and nutritional deficits. Group discussions will follow to compare and interpret findings.
Step 02 (Second 70 Minutes) Students will participate in simulated role-plays where they present their case analyses, propose internal *Siddha* medications, *paatiyam* (dietary recommendations), and preventive care strategies. Students will collaborate to document a structured deworming plan referencing classical *Siddha* guidelines.
Assessment (Final 20 Minutes) Teacher will assess student performance through Mini-CEX evaluations during role-play, accuracy of *Kudarpuzhu* classification, clarity in presenting treatment plans, and peer feedback. Case documentation will also be reviewed, with emphasis on clinical reasoning, communication skills, and application of *Siddha* therapeutic concepts.

Experiential-Learning 8.8 : Clinical Diagnosis and Management of Pediatric *Kirumi* Using *Siddha Principles*

Total Duration of the Activities 3 Hours
Students will be posted in pediatric OPD/IPD settings to identify and document clinical signs of *Kirumi* infections in children, such as itching, bloating, irritability, and poor appetite. They will assist in classification, recommend *Siddha* deworming therapies, and advise on *paatiyam* and preventive care practices, following *Siddha* classics. Case discussions will focus on treatment progress and recurrence prevention.
Instructions to Students (First 20 Minutes)
Teacher will guide students to observe pediatric Kirumi cases carefully, identify *thodam* influences using *Siddha* diagnostic methods, document findings systematically, and assist in recommending suitable internal formulations, dietary regulations, and preventive strategies. Active participation in bedside discussions and therapeutic planning is expected.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will observe at least two pediatric cases suspected of *Kirumi*. They will document clinical symptoms, perform *Siddha*-based diagnostic classification, identify the type of *Kirumi*, and note the therapeutic strategies followed, including internal medicine and supportive measures.
Step 02 (Second 70 Minutes) Students will assist in preparing or advising appropriate *Siddha* deworming remedies. They will discuss *paatiyam* and preventive strategies with caregivers under teacher supervision, compile group treatment approaches, and document patient responses, focusing on integrating classical *Siddha* guidelines into clinical practice.
Assessment (Final 20 Minutes) Teacher will assess students through Mini-CEX evaluations during clinical observations, accuracy of *Siddha* diagnostic classification, communication effectiveness with caregivers, thoroughness of documentation, and participation in peer discussions. Emphasis will be on clinical reasoning, therapeutic understanding, and application of *Siddha* preventive practices.

Experiential-Learning 8.9 : Clinical Analysis and Comparative Documentation of Pediatric Worm Infestations

Total Duration of the Activities 3 Hours

Students will review real or simulated pediatric cases presenting with symptoms of *Masari, Keeri, and Irai* infections. They will observe symptom patterns,*thodam* influences, and life cycle aspects according to *Siddha* diagnostic markers. Working in teams, students will prepare comparative charts and discuss *Siddha* deworming treatments, diet protocols, and preventive approaches.
Instructions to Students (First 20 Minutes) Teacher will introduce the *Siddha* nosology of *Masari, Keeri, and Irai* worm infestations, outlining key clinical signs and *kutram* associations. Students must observe pediatric cases carefully, document findings, work collaboratively to analyze differences, and prepare comparative charts summarizing their observations and *Siddha* therapeutic principles.
Students' Activities (140 Minutes)
Step 01 (First 70 Minutes) Students will study pediatric case presentations focusing on *Masari, Keeri, and Irai* symptoms. They will document signs and symptoms according to *Siddha* classifications and analyze distinguishing features like nocturnal itching, abdominal issues, and nutrient deficiency symptoms using classical references.
Step 02 (Second 70 Minutes) Students will collaboratively prepare comparative charts highlighting key differences and overlaps among *Masari, Keeri, and Irai.* They will also discuss *Siddha*-based internal medicines, paatiyam, preventive practices, and present their charts to peers for feedback and refinement.
Assessment (Final 20 Minutes) Teacher will assess students on the completeness, clarity, and diagnostic accuracy of the comparative charts, participation in peer discussions, and responses during a short viva. Emphasis will be on clinical differentiation ability, *Siddha* classification understanding, and presentation of preventive care strategies.

Modular Assessment

Assessment method	**Hour**
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 6C. **Section A** - 25 Marks - ABQ/ LAQ/SAQ & **Section B** – This 25-mark modular exam assesses clinical application through structured Mini-CEX and practical observation for *Vippuruthi, Viyarvai, Vishapaakam, Sira Rogam, Amirtha Rogam, Paatha Rogam and Kudarpuzhu Noigal.* Students will perform case-based diagnosis, propose Siddha-based interventions, and demonstrate patient communication. Evaluation focuses on clinical reasoning, treatment planning, and alignment with Siddha pediatric principles. Instructions to Students: Students will receive a pediatric clinical scenario from Modules M8.U1–U4. Conduct structured history taking, identify the subtype using Siddha principles, and plan a management approach. Demonstrate communication with caregivers and explain preventive strategies. Engage in a short viva to justify your diagnostic reasoning and therapeutic selection. No books or notes allowed. Instructions to Teachers: Prepare patient management problems or live/simulated cases reflecting *Vippuruthi, Viyarvai,* neuro disorders, *Paatha Rogam*, or *Kudarpuzhu*. Observe students during history taking, reasoning, and patient/caregiver interaction. Use Mini-CEX and structured checklists to evaluate *thodam* analysis, treatment integration, and communication clarity. Provide immediate feedback post-assessment.	4

Mark Distribution: The total marks for this assessment are 25, distributed as follows: Case Identification and Siddha Diagnosis carries 7 marks, Therapeutic Plan including internal, external, and dietary components receives 6 marks, Mini-CEX Observation is allotted 5 marks, Preventive Strategy and Follow-up Plan gets 4 marks, and Communication and Viva Justification carries 3 marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	

Paper No : 2 Integrative pediatrics with recent advances

Semester No : 3

Module 9 : ?????????????? ????? ???? ???????? ??????????? - Kuzhanthaigalukkaana Siddha Varmam Maruthuva Adippadaigal (Fundamentals of Siddha Varmam in Pediatrics)

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

Describe the origins and classical texts of pediatric *Varmam therapy*.
Explain the principles of *Nadi, Vayukkal,* and directional energy in children.
Discuss cosmic energy and its therapeutic influence on pediatric health.
Apply *Varmam*-based diagnostic and preventive strategies in Siddha pediatrics.
Interpret Siddha classifications and prognostic methods for pediatric disorders.
Integrate Siddha internal medicine with *Varmam therapy* in pediatric care.

M 9 Unit 1 ????? ?????????? ?????? - Siddha Varmathin Varalaru - History of Siddha Varmam

9.1.1 Origin of *Varmology* – Martial origins, healing system evolution, philosophical foundations, therapeutic shift, pediatric relevance, historical lineage.
9.1.2 Classical Texts in *Varmology – Thirumandiram, Varma Suthirangal,* Siddha *palm-leaf* manuscripts, *Varma point* classification, *vaasi* flow, energy anatomy, textual interpretations.
9.1.3 Pediatric Applications of *Varmam Therapy* – Delayed milestones, cerebral palsy, neuro-muscular disorders, behavioral concerns, pressure modulation, age-specific methods, safety considerations.
9.1.4 Regional Variations and Traditional Practices – Tamil Nadu-based practices, healer-specific techniques, cultural rituals, pediatric application diversity, local *Varma* traditions.
9.1.5 Modern Adaptations and Research in *Varmology* – Integrative protocols, rehabilitation settings, clinical trials, pediatric *Varmam* modules, interdisciplinary models, public health initiatives.

References: 15,49,50,54,55,56,106,113

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO8	Describe Varmology's history from Siddhar origins to current pediatric care applications and evolution.	1	Lecture	CAN	Knows-how	L_VC,L&GD,L&PPT ,L
CO3,CO4,CO6	Demonstrate pediatric *Varmam* techniques with precision and safety.	3	Practical Training 9.1	PSY-MEC	Shows-how	PL,D,RP
CO3,CO4,CO6	Identify and locate key pediatric *Varmam* points accurately.	3	Practical Training 9.2	PSY-MEC	Shows-how	RLE,PL,PBL,D-M
CO1,CO3,CO8	Apply classical *Varmam principles* and apply them to pediatrics.	2	Practical Training 9.3	CAP	Shows-how	LS,TBL,PL
CO1,CO3,CO8	Discuss pediatric Varmam uses for neuro-musculoskeletal disorders, regional variations, and modern Varmology adaptations.	1	Lecture	CC	Knows-how	D-BED,L&GD,D,D-M
CO3,CO6,CO7	Demonstrate *Saram and Vaasi Ottam* techniques effectively.	2	Practical Training 9.4	PSY-MEC	Shows-how	D-BED,SIM,PL
CO2,CO4,CO7	Integrate historical roots and value pediatric relevance of *Varmology*	3	Experiential-Learning 9.1	CS	Does	TBL,BL,LS
CO1,CO3,CO6	Demonstrate basic pediatric *Varmam* techniques and compare traditional and modern evidence-based applications	3	Experiential-Learning 9.2	PSY-MEC	Does	CBL,RLE,D-BED
CO1,CO3,CO8	Appraise regional variations in pediatric *Varmam* practices through inquiry-based observation and practitioner engagement	3	Experiential-Learning 9.3	AFT-VAL	Shows-how	FV,IBL,RLE

M 9 Unit 2 ???????????? ????? ?????????? ??????????? - Kuzhanthaikalin Siddha Varmathin Adippadaigal - Basic Concepts of Siddha Varmam in Pediatrics

9.2.1 *Nadi* Concept in Pediatric *Varmam – E*nergy channel classification, life force distribution, pediatric physiological functions, diagnostic correlations, *Varmam point* mapping.
9.2.2 *Vayukkal* and Pediatric Health – Ten *Vayukkal types*, physiological roles, developmental milestones, *Vayu* imbalance signs, condition-specific manifestations, Siddha therapeutic relevance.
9.2.3 *Saram and Vasi* Applications – Life essence interpretation, breath regulation, physical and cognitive harmony, pediatric breath modulation, therapeutic breathing techniques.
9.2.4 *Amirtham and Visham* Balance – Dual energy principles, vitality and toxicity roles, imbalance symptoms, energy modulation in childhood care.
9.2.5 *Kona Nilaigal* and Energy Directions – Energy directional flow, spatial orientation of *Varmam*, systemic influence, procedural integration in pediatric *Varmam* therapy.

References: 19,24,32,51,52

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Apply knowledge of *Nadi* pathways to pediatric *Varmam care.*	2	Practical Training 9.5	CAP	Shows-how	D-M,LS, C_L
CO1,CO3,CO6	Perform *Vayukkal* techniques to regulate pediatric energy flow.	2	Practical Training 9.6	PSY-MEC	Shows-how	D-M
CO1,CO3	Describe the concept of Nadi (energy channels) in Varmam and its role in regulating life force and energy flow in the body.	1	Lecture	CAN	Knows-how	L,PER,L &GD,L_ VC
CO1,CO3,CO5	Discuss pediatric roles of Saram, Vasi, Amirtham, Visham, Kona Nilaigal for holistic child wellness.	1	Lecture	CAN	Knows-how	L&PPT , TBL,L& GD
CO2,CO3,CO4	Analyze the role of *Nadi and Vayukkal* in pediatric *Siddha therapy* and simulate their clinical applications	3	Experiential-Learning 9.4	CC	Does	SIM,D-M,JC
CO1,CO3,CO5	Demonstrate pediatric-adapted *Vasi* techniques and analyze energy imbalances based on *Siddha principles*	3	Experiential-Learning 9.5	PSY-GUD	Does	DIS,D,PL
CO1,CO3	Discuss functions of Vayukkal and pediatric Varmam uses for neuro-musculoskeletal	1	Lecture	CC	Knows-	DIS,L,L&

	care and adaptations.				how	GD

M 9 Unit 3 ???? ???? ?????? - Varmam Anda Aatral - Varmam Cosmic Energy

9.3.1 Cosmic Energy in Pediatric *Varmam – Aagayam Uyir Sakthi*, cosmic origin, energetic influence, physical and mental development, Siddha doctrines, pediatric vitality alignment.
9.3.2 Interaction of *Varmam* Points with Cosmic Energy – Energy flow dynamics, *Varmam point* modulation, developmental phase influence, vibrational alignment, cosmic-pediatric interface.
9.3.3 Influence in Pediatric *Siddha Varmam* – Planetary positioning, cosmic timing, natal chart relevance, energetic sensitivity, pediatric healing responsiveness.
9.3.4 Techniques for Energy Activation and Restoration – Focused stimulation, energy balancing protocols, pediatric *Varmam* correction, Siddha procedural framework, therapeutic outcomes.
9.3.5 Research Trends in Cosmic Energy and Pediatric Health – Traditional evidence, integrative clinical trials, pediatric case studies, energy medicine validation, holistic healthcare integration.

References: 33,52,56

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO7	Analyze cosmic energy interactions in pediatric *Varmam* and propose evidence-based research perspectives	3	Experiential-Learning 9.6	AFT-VAL	Shows-how	W,D,IBL
CO1,CO3,CO5	Analyze astrological and energy roles in pediatric Varmam; explore research on cosmic energy validation.	1	Lecture	CAN	Know	L,L&GD
CO1,CO3,CO5	Analyze astrological and energy roles in pediatric Varmam; explore research on cosmic energy validation.	1	Lecture	CAN	Know	L,L&GD

M 9 Unit 4 ???? ????????? ??????? ????????? ??????? - Varma NootkaliL Kuzhanthai Maruthuva Muraigal Pediatric Medicine in Varmam Literatures

9.4.1 Disorder Classification – *Siddha* classification systems, neurological and behavioral disorders, developmental delays, *Varmam*-based mapping, pediatric symptomatology.
9.4.2 Therapeutic Applications – Autism spectrum disorders, cerebral palsy, motor dysfunction, sensory impairments, Varmam point selection, pressure techniques, therapeutic customization.

9.4.3 Preventive Strategies – Pediatric immune boosting, *Varmam* point activation, dietary regulations, sleep hygiene, seasonal regimens, Siddha preventive protocols.
9.4.4 Diagnosis and Prognosis – *Varmam* responsiveness, functional severity grading, treatment planning, prognostic indicators.
9.4.5 Integrated Care – Siddha internal medicines, *Varmam* stimulation synergy, chronic care optimization, integrative protocol development, long-term pediatric wellness enhancement.

References: 53,55,56,93

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Apply *Varmam therapies* for pediatric neurological conditions.	3	Practical Training 9.7	PSY-GUD	Shows-how	CBL,PBL,D-M,D
CO1,CO3,CO5	Construct and Integrate of *Siddha* Medicines with *Varmam Therapy* for Holistic Pediatric Care	3	Practical Training 9.8	PSY-GUD	Shows-how	ML,JC,PSM,C_L
CO1,CO6,CO7	Analyze and interpret *Siddha* texts to synthesize pediatric diagnostics	3	Experiential-Learning 9.7	CAN	Does	LS,DIS,CD,C_L,TBL
CO3,CO4,CO7	Design integrative care protocols combining *Siddha* internal medicine and *Varmam* therapy for chronic pediatric wellness	3	Experiential-Learning 9.8	CS	Shows-how	W,DIS,D,CBL
CO1,CO3,CO5	Demonstrate appropriate *Varmam* point selection and pressure techniques for pediatric neurodevelopmental disorders	2	Experiential-Learning 9.9	PSY-GUD	Does	PAL,SIM,CBL,PL,D
CO1,CO3,CO5	Describe Varmam classification of pediatric neurodevelopmental disorders and treatments for autism, cerebral palsy.	1	Lecture	CAN	Knows-how	D,D-BED,CBL
CO1,CO3,CO5	Discuss Varmam-based preventive strategies for child health and neurological protection through wellness approaches.	1	Lecture	CC	Knows-how	D,CBL,D-BED
CO1,CO3,CO5	Analyze Varmology diagnostics and integrate Siddha with Varmam therapy in pediatric	1	Lecture	CAN	Knows-	D-BED,D

	illness management.				how	IS,D

Practical Training Activity

Practical Training 9.1 : Application of Basic *Varmam* Techniques in Pediatrics

Total Duration of the Activities: 3 Hours
This practical session enables students to understand and demonstrate basic *Varmam techniques* relevant to pediatric conditions. Students will observe demonstrations of selected *Varmam points* and then practice these techniques on models or simulated patients using appropriate pressure, direction, and finger positioning. Emphasis is placed on safety, clinical relevance, and therapeutic intent in pediatric contexts. Peer observation and role-play will reinforce technique mastery and patient communication skills.
Instructions to Students (First 30 Minutes): Teacher will demonstrate basic *Varmam* points commonly used in pediatric care, emphasizing anatomical location, finger technique, pressure regulation, and safety precautions. Teacher will instruct students to note indications and contraindications for pediatric use and prepare for hands-on simulation and feedback.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will practice locating and stimulating selected *Varmam points* on anatomical models or peers under supervision. They will record the therapeutic intent (e.g., for sleep regulation, digestion, or musculoskeletal support) and note patient responses using a structured checklist.
Step – 02 (Next 60 Minutes): Students will conduct peer role-plays simulating pediatric scenarios where *Varmam therapy* is indicated. They will explain the rationale, gain simulated caregiver consent, and apply the technique while peers observe and provide feedback.
Assessment (Final 30 Minutes): Teacher will use a DOPS checklist to assess technique accuracy, safety, and student communication. Simulated patient feedback and observation will contribute to assessment. A brief role-play-based evaluation will test clarity in instruction delivery, proper *Varmam application,* and understanding of potential contraindications in pediatric settings.

Practical Training 9.2 : Identification and Localization of Key *Varmam* Points in Pediatric Care

Total Duration of the Activities: 3 Hours
This session focuses on identifying and understanding key *Varmam* points specifically indicated for pediatric neurological and musculoskeletal support. Students will use anatomical models to locate each point and study their therapeutic roles. Through peer learning and problem-based case scenarios, students will correlate clinical conditions with relevant *Varmam* applications. Observational accuracy, anatomical precision, and understanding of clinical relevance will be emphasized throughout.
Instructions to Students (First 30 Minutes): Teacher will demonstrate the anatomical location of essential pediatric *Varmam points* using models. Teacher will explain the physiological effects of each point, their therapeutic applications in pediatric neurological and musculoskeletal conditions, and guide students in documenting the points accurately with clinical correlations.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will work in peer groups to identify and mark key *Varmam points* on anatomical models. They will record the indications, anatomical landmarks, and mechanisms of action for each *Varmam point* relevant to pediatric care.

Step – 02 (Next 60 Minutes): Students will be given pediatric clinical scenarios (e.g., hypotonia, motor delay, joint stiffness). They will match suitable *Varmam points* to the condition and prepare a short class presentation on their observations, therapeutic justification, and expected outcomes.
Assessment (Final 30 Minutes): Teacher will conduct a Mini-CEX to evaluate students' proficiency in locating *Varmam* points and explaining their relevance. Class presentations will be assessed for accuracy, clarity, and integration of clinical reasoning. A practical viva will test the students' understanding of each point's role in pediatric disease management and safety considerations in pediatric *Varmam therapy*.

Practical Training 9.3 : Exploring Classical *Varmam Texts* and Their Influence on Pediatric Care

Total Duration of the Activities: 2 Hours
This session guides students through classical *Siddha Varmam texts,* helping them extract foundational principles and interpret their relevance to pediatric healthcare. Through guided reading, team-based synthesis, and peer discussion, students will document core concepts, understand their rationale, and explore how these ancient insights inform present-day pediatric *Varmam* applications.
Instructions to Students (First 20 Minutes): Teacher will assign selected passages from classical *Varmam* texts *(e.g., Varma Kannadi, Varma Soothiram)* and guide students on how to interpret the theoretical content. Teacher will explain key themes—like energy flow, point activation, and pediatric suitability—and assign teams to begin structured analysis and reflection.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will work in teams to analyze the assigned *Varmam* text excerpts, identify principles relevant to child physiology and disease management, and record their understanding in structured notes for compilation.
Step – 02 (Next 40 Minutes): Students will relate selected *Varmam* concepts to pediatric clinical scenarios (e.g., speech delay, limb weakness) and prepare a group summary. Each team will share insights with peers, comparing interpretations and discussing classical knowledge applicability in pediatric *Varmam* interventions.
Assessment Methods (Final 20 Minutes): Teacher will assess students based on the completeness and clarity of their compiled notes, the quality of documentation in their record book, and responses to a structured LAQ that tests their comprehension and application of classical *Varmam principles* in pediatric contexts. Peer interaction and interpretation consistency will also be considered during review.

Practical Training 9.4 : Demonstration of *Saram and Vaasi Ottam*

Total Duration of the Activity: 2 Hours
This session introduces students to the *Siddha-based* techniques of *Saram and Vaasi Ottam*, focusing on their practical application in promoting physical and mental well-being in children. Through bedside demonstration, peer-led simulation, and role-play interactions, students will learn to perform and guide these breathing and energy alignment exercises. Emphasis is placed on therapeutic relevance in pediatric anxiety, respiratory disorders, and neurodevelopmental regulation.
Instructions to Students (First 20 Minutes): Teacher will demonstrate *Saram and Vaasi Ottam* techniques, guiding students on breath control, posture, and rhythmic flow. Explanation will be provided on how these methods align with *Siddha* concepts of life energy *(Uyir Vayu)* and their importance in regulating pediatric health. Students will be paired and assigned roles for guided practice and observation.

Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will perform *Saram and Vaasi Ottam* under supervision, practicing breath sequences and documenting their physiological and emotional responses. Peer pairs will guide and correct each other's technique and posture while simulating patient interactions.
Step – 02 (Next 40 Minutes): Students will engage in role-play scenarios simulating counseling a pediatric patient and caregiver on the use of *Saram and Vaasi* for conditions like anxiety, restlessness, or fatigue. Each pair will present the process and therapeutic context during a peer-led review.
Assessment Methods (Final 20 Minutes): Teacher will assess student performance using CBA checklists for demonstration accuracy and peer communication. Simulated patient responses will be reviewed for empathy, clarity, and technique delivery. Peer assessment will provide feedback on role clarity, understanding of energy regulation, and therapeutic relevance in pediatric care.

Practical Training 9.5 : Identification and Mapping of *Nadi* Pathways in Pediatrics

Total Duration of the Activities: 2 Hours
This practical enables students to identify and map key *Nadi* pathways related to *Siddha Varmam therapy* for pediatric applications. Using anatomical diagrams and models, students will visualize energy flows, understand their physiological relevance, and relate blockages or disturbances to pediatric conditions. Through co-learning and guided demonstration, the session enhances integrative comprehension and documentation skills.
Instructions to Students (First 20 Minutes): Teacher will explain the concept of *Nadi* in *Siddha medicine*, focusing on pediatric physiology and energy regulation. Teacher will demonstrate tracing major *Nadi pathways (e.g., Ida, Pingala, Suzhumunai)* on anatomical models. Students will be provided reference texts and visual charts for library-based review of classical descriptions and clinical relevance.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will work in pairs to trace and mark the primary *Nadi* pathways on pediatric anatomical diagrams or models. They will identify the starting and ending points of each *Nadi* and record observations in their notebooks, including related *Varmam* points.
Step – 02 (Next 40 Minutes): Students will prepare a visual poster summarizing the mapped *Nadi* pathways, their flow directions, functional roles, and potential impact in pediatric conditions when imbalanced. Students will engage in peer feedback and co-learning discussion on their findings.
Assessment Methods (Final 20 Minutes): Teacher will assess the accuracy of students' *Nadi* mapping using rating scales, evaluate their poster presentation for clarity and relevance, and conduct a practical viva to test their ability to explain *Nadi* functions and pediatric implications in the *Siddha Varmam* context.

Practical Training 9.6 : Application of *Vayukkal* Movements for Energy Flow Regulation

Total Duration of the Activities: 2 Hours
This session introduces students to the *Vayukkal (Vayu movements)* involved in energy regulation according to *Siddha principles*. It focuses on understanding the five major *Vayus* and their roles in pediatric energy balance. Through a flipped classroom approach and hands-on demonstrations using anatomical models, students will learn to identify disturbances and apply techniques to correct imbalances. Visual chart-making and peer presentations reinforce their understanding and communication skills.
Instructions to Students (First 20 Minutes): Teacher will provide a brief recap of pre-class study materials related to the five primary *Vayukkal.* Teacher will then

demonstrate movement patterns on anatomical models, emphasizing the direction, rhythm, and associated energy regulation zones. Students will be guided to observe how each *Vayu* influences pediatric physiology and how improper flow contributes to clinical symptoms.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will practice demonstrating *Vayukkal flow* movements using anatomical models. They will simulate correction of *Pranan, Abanan, Viyanan, Udhanan, and Samanan* disturbances by aligning hand gestures and energy flow with classical *Siddha* principles. Observations will be documented.
Step – 02 (Next 40 Minutes): Students will create charts or models to represent the direction and clinical relevance of each *Vayu.* Each team will give a short presentation explaining the movement, its functional role, and therapeutic application in pediatric disturbances such as constipation, breathing difficulty, or restlessness.
Assessment Methods (Final 20 Minutes): Teacher will evaluate students based on the poster/model clarity, presentation content, and practical viva, focusing on their understanding of energy movement mechanisms, accuracy in demonstrations, and ability to correlate *Vayukkal* disturbances with pediatric health concerns.

Practical Training 9.7 : Therapeutic Applications – *Varmam* Techniques for Autism, Cerebral Palsy, and Sensory-Motor Disorders

Total Duration of the Activities:3 Hours
This session trains students to identify and apply therapeutic Varmam techniques in pediatric neurodevelopmental conditions like Autism Spectrum Disorders (ASD), Cerebral Palsy (CP), motor dysfunction, and sensory impairments. Students will examine clinical presentations and learn to select appropriate *Varmam points.* Demonstration models will be used to practice pressure application techniques. The focus will be on customizing therapy protocols based on age, neurological pattern, and individual response.
Instructions to Students (First 30 Minutes): Teacher will present pediatric case profiles of Autism Spectrum Disorders (ASD), Cerebral Palsy (CP) and sensory-motor dysfunctions. Demonstration on models will highlight specific *Varmam points (e.g., Pidari Kaalam, Thilartha Kalam, Naadi Kalam)* and pressure techniques suited for pediatric care. Students will be instructed on safety considerations, pressure duration, and therapeutic frequency.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will assess assigned pediatric case scenarios. Based on the symptomatology (speech delay, rigidity, hypotonia, sensory aversion), they will select *Varmam* points and customize a treatment protocol using guided charts and reference models. They will practice application techniques under supervision.
Step – 02 (Next 60 Minutes): Students will document therapy customization for each case: point selection, technique rationale, expected outcomes, contraindications, and frequency of application. They will present the care plan in peer groups and simulate the pressure application technique again for feedback.
Assessment Methods (Final 30 Minutes): Teacher will use DOPS to assess the precision of point location and pressure technique. Mini-CEX will evaluate communication clarity, justification for *Varmam selection*, and understanding of patient-centered adaptations. Case-Based Assessment will test the logic and individualization in therapy plans, including safety considerations and monitoring strategies.

Practical Training 9.8 : Integration of *Siddha Medicines* with *Varmam Therapy* for Holistic Pediatric Care

Total Duration of the Activities:3 Hours
This session aims to empower students to create integrated pediatric care models by combining *Siddha internal medicines with Varmam* stimulation techniques. Students

will analyze chronic pediatric conditions (e.g., recurrent respiratory illness, neurodevelopmental disorders) and optimize long-term wellness protocols. They will use mobile platforms to access *Siddha texts* and research databases, participate in journal discussions, and collaboratively draft treatment plans that align *Siddha principles* with modern chronic care strategies.
Instructions to Students (First 30 Minutes): Teacher will facilitate a journal club session introducing current research articles on *Siddha*-based pediatric chronic care. Students will review formulations, therapeutic indications, and relevant *Varmam literature.* Mobile devices may be used to access case reports or clinical guidelines. Students will be divided into co-learning teams and assigned a chronic pediatric condition for integrative protocol development.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will collaborate in teams to design an integrated care plan for assigned pediatric conditions. They will map appropriate *Siddha* internal medicines, identify supportive *Varmam points,* and formulate a synergistic protocol. They will focus on chronic care goals like symptom control, quality of life improvement, and prevention of recurrence.
Step – 02 (Next 60 Minutes): Students will write a creative case narrative demonstrating application of their care model in a real-world pediatric scenario. Each group will also prepare a visual presentation of their integrated protocol, including rationale for drug selection, point stimulation, and monitoring guidelines.
Assessment Methods (Final 30 Minutes): Teacher will evaluate students through a structured LAQ to assess their ability to design integrated care protocols with defined long-term goals and justification for *Siddha integration*. Creative writing will be reviewed for clinical relevance and innovation in care synthesis. Group presentations will be assessed for clarity, logical sequencing, and feasibility of the proposed integrative pediatric wellness model.

Experiential learning Activity

Experiential-Learning 9.1 : Exploring Historical Evolution and Pediatric Applications of *Varmology*

Total Duration of the Activities 3 Hours
Students will explore the historical foundation and pediatric relevance of *Varmology* through multimedia content and classical *Siddha texts* such as *Thirumandiram* and *Varma* literature. Working in teams, students will construct a historical timeline tracing the evolution of *Varmam,* identify *Siddhars* and classical contributions, and discuss its application in pediatric *Siddha practice.* The session emphasizes critical literature review and collaborative documentation of *Siddha* heritage in modern pediatric care.
Instructions to Students (First 20 Minutes) Teacher will introduce the history and principles of *Varmam* using video/documentary and *Siddha* literature excerpts. Students will be assigned to groups with selected passages highlighting pediatric relevance. Instructions will be given on timeline development, classical referencing, and documentation clarity.
Students' Activities (Next 140 Minutes)
Step – 01 (70 Minutes): Students will conduct a focused literature review in the library, compiling references on *Varmam* history, key *Siddhars,* and pediatric mentions. Groups will begin constructing annotated historical timelines integrating classical sources and commentary.
Step – 02 (70 Minutes): Each group will present their timeline, highlighting the evolution of *Varmam* and its pediatric significance. Discussions will include interpretation of classical insights, clinical relevance today, and integration into *Siddha* pediatric education.
Assessment (Final 20 Minutes) Teacher will evaluate group presentations for content accuracy, classical reference integration, and clarity. A Trainer's Report will document

engagement and collaboration. Students will submit Creative Writing pieces summarizing their learning and reflections on how ancient *Varmam practices* influence pediatric care.

Experiential-Learning 9.2 : *Varmam* Therapy in Pediatric Neurological and Musculoskeletal Care:

Total Duration of the Activities 3 Hours

This hands-on, discussion-based experiential session immerses students in the practice and critical evaluation of *Varmam therapy* in pediatric care, focusing on neurological and musculoskeletal disorders. The session begins with a demonstration of pediatric *Varmam points*, emphasizing safety, technique, and clinical application. Students will explore regional variations of *Varmam* and analyze contemporary research that integrates traditional practices with evidence-based pediatric rehabilitation models. By the end, students will compare traditional *Varmam* systems with modern adaptations and reflect on their clinical relevance.

Instructions to Students (First 20 Minutes) The Teacher will demonstrate basic pediatric *Varmam points* on children models/ mannequins, explaining indications, pressure application, and safety. Students will receive handouts on regional *Varmam* practices and recent research in pediatric *Varmam therapy.* They are expected to observe closely and prepare for group discussions on how traditional knowledge intersects with modern rehabilitation strategies.

Students' Activities (70 min + 70 min = 140 minutes)

Step 01 (First 70 Minutes) Students will practice identifying and applying pediatric *Varmam* points on children/anatomical models, noting traditional indications for conditions such as cerebral palsy, motor delays, joint stiffness, and other pediatric neurological/musculoskeletal disorders. Observations will be documented in a structured worksheet.

Step 02 (Second 70 Minutes) Students will review regional case examples and research findings on pediatric *Varmam.* In groups, they will discuss how regional traditions and modern clinical trials influence current applications. Each group will create a comparison chart between traditional *Varmam* practices and evidence-based adaptations in pediatric care.

Assessment (Final 20 Minutes) The Teacher will conduct a Direct Observation of Procedural Skills (DOPS) during *Varmam* application and evaluate students using a practical performance checklist. A Case-Based Assessment (CBA) will be conducted through oral or written presentation, focusing on the ability to connect traditional principles with modern evidence and propose clinically relevant applications in pediatrics.

Experiential-Learning 9.3 : Field Exploration of Regional Pediatric *Varmam* Practices in Tamil Nadu

Total Duration of the Activities 3 Hours

This experiential learning activity involves a field visit to traditional *Varmam* centers across different regions of Tamil Nadu, where students will observe regional adaptations of pediatric *Varmam therapy*. Emphasis will be placed on techniques used in managing developmental delays, neurological dysfunctions, and musculoskeletal disorders in children. Students will engage directly with local practitioners, documenting unique methodologies, use of herbal adjuncts, and the cultural context behind treatment decisions. The visit encourages students to understand the diversity in *Siddha* therapeutic knowledge, particularly in child-centered Varmam care.

Instructions to Students (First 20 Minutes) The Teacher will brief students on observation goals for the field visit. Students are instructed to focus on technique variations, age-specific approaches, and traditional knowledge shared by practitioners. Students should ask about safety measures, treatment rationale, and regional herbal combinations

used in pediatric *Varmam.* Special attention should be paid to posture, tools, and point selection during treatments.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will observe pediatric *Varmam* treatments, document distinctive techniques, local herbal applications, and age-adapted approaches. Notes will include clinical indications, patient handling, and integration of cultural beliefs in practice.
Step 02 (Second 70 Minutes) Students will compile findings into a comparative regional report, identifying differences in techniques, herbal adjuncts, and practitioner philosophy. The report should highlight child-specific adaptations, traditional reasoning, and any observed innovations or safety practices in pediatric applications.
Assessment (Final 20 Minutes) The Teacher will collect trainer feedback from *Varmam* practitioners, and review student survey notes and comparative reports. Peer assessment will be conducted based on participation, depth of observation, and collaborative contributions. Evaluation will focus on the student's ability to document, synthesize, and reflect upon diverse traditional practices in pediatric *Varmam* care.

Experiential-Learning 9.4 : Understanding *Nadi and Vayukkal* Concepts through Simulation and Model-Based Demonstration

Total Duration of the Activities 3 Hours
This experiential session integrates theoretical concepts and practical simulation to explore the *Siddha* framework of *Nadi* (energy channels) and *Vayukkal* (vital air movements) in relation to pediatric health. Students will participate in faculty-led discussions, observe model-based demonstrations, and simulate clinical disturbances associated with *Vayukkal imbalance.* Group activities will link *Nadi flow* and *Varmam* points to pediatric symptoms like colic, breathlessness, and developmental delay, deepening understanding of energetic pathology in *Siddha* pediatrics.
Instructions to Students (First 20 Minutes) The Teacher will introduce the structure and function of *Nadi pathways and Vayukkal dynamics*, highlighting their role in pediatric disorders. Students will observe demonstrations on anatomical models and ask questions to clarify how energy flow imbalances contribute to clinical presentations. Prepare to work in small groups for hands-on simulation, critical discussions, and case mapping activities.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will identify and mark major *Nadi pathways* and corresponding *Varmam points* using anatomical models. In small groups, they will discuss how *Nadi* disturbances correlate with specific pediatric conditions, using references from *Siddha* literature or recent journal articles. Each group will summarize findings in a poster or chart.
Step 02 (Second 70 Minutes) Students will simulate *Vayukkal disturbances* using role-play and group analysis. Through case examples (e.g., infantile colic, asthma, developmental delay), they will map *Vayu* dysfunction, propose *Varmam*-based management plans, and compare interpretations across group discussions. Emphasis will be on clinical reasoning and *Siddha* energetics.
Assessment (Final 20 Minutes) The Teacher will evaluate students using a peer assessment checklist, review of critical reading notes (from referenced texts or articles), and poster/chart presentations summarizing their understanding of *Nadi-Vayukkal* correlation in pediatric *Siddha* care. Focus will be placed on concept clarity, application of simulation, and team-based interaction.

Experiential-Learning 9.5 : *Saram, Vasi, Amirtham, and Visham* in Pediatric *Siddha Care.*

Total Duration of the Activities 3 Hours

This experiential learning session guides students through the *Siddha* concepts of *Saram* (essence/energy) and *Vasi* (breath regulation) and their impact on pediatric mental and physical development. Students will also explore *Amirtham* (vital elixir) and *Visham* (toxic stagnation), and how imbalances influence health outcomes in children. Through demonstration, discussion, and self-practice, students will simulate breath control exercises, identify clinical patterns of energy imbalance, and propose restorative interventions using Siddha-based tools like *Vasi and Varmam therapy.*

Instructions to Students (First 20 Minutes) The Teacher will provide an overview of *Saram, Vasi, Amirtham, and Visham,* demonstrating basic pediatric-friendly breath control *(Vasi)* techniques. Students will observe, reflect, and discuss how *Siddha* energy systems contribute to pediatric wellness or illness. Students should take note of energy assessment techniques and their relevance to clinical pediatric scenarios.

Students' Activities (70 min + 70 min = 140 minutes)

Step 01 (First 70 Minutes) Students will practice basic *Vasi* techniques under supervision, focusing on breath regulation patterns suitable for children. In small groups, they will discuss the physiological and emotional effects of *Vasi,* and document its relevance in enhancing mental clarity, focus, and vitality in pediatric health.

Step 02 (Second 70 Minutes) Students will analyze clinical video cases or written scenarios depicting symptoms of *Amirtham-Visham* imbalance (e.g., lethargy, irritability, growth delays). Based on findings, they will develop a *Siddha*-based plan using breath regulation, lifestyle suggestions, and *Varmam therapy* to support energy restoration.

Assessment (Final 20 Minutes) The Teacher will assess students through peer assessment of breathwork practice, observation of practical performance, and analysis of responses to clinical video cases. Emphasis will be placed on accuracy in identifying imbalances, effectiveness in demonstrating *Vasi,* and clarity in explaining *Siddha* therapeutic applications.

Experiential-Learning 9.6 : Cosmic Energy and Pediatric *Varmam:* Bridging Traditional Concepts with Contemporary Inquiry

Total Duration of the Activities 3 Hours

This experiential workshop explores the influence of cosmic energy on pediatric physical and mental development through the lens of *Varmam therapy.* Students will learn how cosmic forces interact with *Varmam points,* observe energy manipulation techniques, and examine the role of astrological influences in child health. Through discussion, observation, and inquiry, students will critically engage with case studies and abstracts, understand traditional theories, and propose researchable ideas connecting cosmic energy to pediatric *Siddha care*.

Instructions to Students (First 20 Minutes)The Teacher will introduce the cosmic energy concept in *Varmam therapy,* with special reference to pediatric care. Students will observe a demonstration on energy point activation, followed by a brief overview of astrological factors influencing child development. They will review selected case abstracts or research papers relating to cosmic energy applications in *Varmam.*

Students' Activities (70 min + 70 min = 140 minutes)

Step 01 (First 70 Minutes) Students will observe and document how cosmic energy is believed to interact with *Varmam points*, especially in children. Through guided inquiry, they will relate energy imbalances to physical and mental pediatric outcomes, compiling observations into a summary chart or worksheet.

Step 02 (Second 70 Minutes) Students will engage in discussion and role play around astrological influences (e.g., planetary alignment at birth, seasonal energy shifts) on pediatric care. Each group will summarize traditional views and propose a mini research idea (e.g., comparative outcomes of *Varmam* treatment during specific lunar

cycles), aiming to validate cosmic energy applications using scientific or observational approaches.
Assessment (Final 20 Minutes) The Teacher will assess students through interactive presentations, role play evaluations, and review of compiled observation charts. Peer and faculty feedback will be used to gauge students' analytical depth, clarity in articulating cosmic energy theories, and creativity in proposing evidence-based research ideas related to pediatric *Siddha Varmam* practice.

Experiential-Learning 9.7 : Text-Based Exploration of Pediatric Disorders in *Varmam* Literature

Total Duration of the Activities 3 Hours
This session is designed to immerse students in classical *Siddha Varmam* literature such as *Varma Suthiram* and *Siddha Maruthuvam*. Students will extract and analyze descriptions of pediatric neurological and developmental disorders, classify conditions according to *Varmam* principles, and explore traditional terminologies. Through collaborative group work, they will map these classical classifications to modern pediatric disease equivalents and develop an understanding of *Siddha* diagnostic and therapeutic frameworks applicable to child health.
Instructions to Students (First 30 Minutes) Teacher will provide selected readings from classical *Varmam Siddha* texts related to pediatric neurological and developmental conditions. Students must carefully analyze the traditional terms, symptom patterns, and treatment strategies mentioned. Guidance will be provided on interpreting *Siddha* terminologies and aligning them with modern pediatric diagnostic equivalents. Each group will be assigned a specific text segment to analyze and present.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will work in small groups to compile a list of pediatric disorders classified in the assigned texts, with a focus on neurological symptoms *(e.g., Valippu, Seerkai, Thookam)* and developmental delays. Students will interpret the classical terminologies and map the descriptions to modern conditions (e.g., epilepsy, autism spectrum disorder, cerebral palsy).
Step – 02 (60 Minutes): Each group will present their findings in a structured format, highlighting the *Siddha* classification systems relevant to pediatric neurological and developmental disorders. Presentations should include mapping of classical symptoms to modern clinical equivalents, references to specific *Varmam* therapeutic approaches mentioned in the texts, and how these interventions are traditionally applied. Students are expected to analyze the integration potential of these *Siddha* insights with current pediatric neurology practices. Reflections should focus on the clinical relevance of classical *Siddha* literature and propose how such traditional knowledge can enhance holistic understanding and care in contemporary pediatric healthcare settings.
Assessment (Final 30 Minutes): Teacher will use a Presentation Rubric to evaluate clarity, accuracy, and integration of *Siddha* and modern perspectives. A Trainer's Report will document participation, text interpretation, and peer collaboration. Creative summaries or case-based analyses may be submitted for assessment of textual understanding and applied learning.

Experiential-Learning 9.8 : Integrated Pediatric Care Using *Siddha* Internal Medicine and *Varmam* Synergy

Total Duration of the Activities 3 Hours
This experiential session enables students to explore integrated care models in *Siddha* pediatrics, combining internal medicines, *Varmam* stimulation, and chronic care strategies. Through case-based analysis, students will develop comprehensive integrative protocols targeting long-term management of chronic pediatric disorders such as

asthma, neurodevelopmental delay, and musculoskeletal conditions. The session highlights synergistic approaches, promoting personalized care, adherence strategies, and quality-of-life improvement through *Siddha*-based interventions.

Instructions to Students (First 30 Minutes) The teacher will introduce integrative care principles, focusing on how *Siddha* internal medicines and *Varmam* stimulation can be synergistically applied in managing chronic pediatric conditions. Students will review core *Siddha* formulations, patterns seen in chronic diseases such as recurrent respiratory illnesses, neurodevelopmental delays, and musculoskeletal disorders. Attention will be given to long-term care strategies including dietary regimens *(Paatiyam),* preventive planning, and home-based monitoring. Students are expected to actively engage in the session, observe the demonstration of integrated approaches, and prepare to apply the knowledge in developing customized pediatric care protocols.

Students' Activities (Next 120 Minutes – 60 min + 60 min)

Step 01 (60 minutes), students will work in groups to analyze assigned clinical case scenarios involving chronic pediatric conditions. Each group will identify suitable *Siddha* internal medicines and *Varmam* points for the case, and justify their combined use for functional improvement and symptom control.

Step 02 (second 60 minutes), groups will develop a comprehensive care protocol that includes daily and weekly medicinal schedules, structured *Varmam* stimulation plans, dietary and lifestyle integration, and caregiver-led monitoring tools. The activity will conclude with group presentations outlining the integrative model, highlighting personalized chronic care and long-term pediatric wellness strategies.

Assessment (Final 30 Minutes) The teacher will evaluate student groups using a structured checklist that includes therapeutic synergy, feasibility, safety in pediatric use, and depth of chronic care planning. Each group's practical performance will be assessed through the demonstration of selected *Varmam* points and explanation of their clinical relevance. Peer assessment will also be used to assess group collaboration, clarity of protocol presentation, and overall integration of *Siddha* principles into child-specific chronic care planning.

Experiential-Learning 9.9 : Therapeutic Application of *Varmam* for Pediatric Neurodevelopmental and Sensory Disorders

Total Duration of the Activities 2 Hours

This experiential learning activity introduces students to the therapeutic applications of *Varmam* for managing pediatric neurodevelopmental and sensory conditions, including autism spectrum disorders, cerebral palsy, motor dysfunction, and sensory impairments. Through demonstration and simulation, students will learn how to select condition-specific *Varmam points* and apply appropriate pressure techniques. Using case-based learning, they will customize therapeutic approaches for individual pediatric presentations, emphasizing safety, age-appropriateness, and therapeutic efficacy in both sensory and motor domains.

Instructions to Students (First 20 Minutes) The teacher will begin by introducing the clinical significance of *Varmam* in managing pediatric neurodevelopmental disorders. A demonstration will be provided on identifying key *Varmam* points and appropriate pressure application techniques specific to conditions like autism, cerebral palsy, and motor coordination impairments. Students will observe therapeutic adaptations based on age, severity of dysfunction, and sensory responsiveness, and will prepare for hands-on practice with peer or model-based simulation.

Students' Activities (Next 80 Minutes – 40 min + 40 min)

Step 01 (40 minutes), students will practice locating and stimulating *Varmam* points related to neurological and sensory regulation on anatomical models or peers. Under supervision, they will apply specific pressure techniques while noting therapeutic goals such as improving tone, reducing spasticity, enhancing focus, or regulating sensory input.

Step 02 (Next 40 minutes), students will work in small groups to analyze pediatric case scenarios. Based on clinical presentations, they will select relevant Varmam points and design a session plan, adjusting pressure and frequency based on individual needs. Groups will present their therapeutic customization plans and receive feedback from peers and the instructor.
Assessment (Final 20 Minutes) The teacher will assess students using a checklist that evaluates the accuracy of *Varmam* point identification, technique execution, and relevance to the condition presented. Practical performance will be reviewed during simulation, while peer assessment will focus on each group's ability to customize and justify their therapeutic approach. Emphasis will be placed on clinical reasoning, safety, and pediatric adaptability in applying Varmam interventions for neurological and sensory pediatric disorders.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - 25 Marks - ABQ/ LAQ/SAQ & Section – B. This 25-mark modular assessment evaluates the learner's comprehensive understanding of pediatric *Varmam therapy* through a combination of online quiz, structured viva, and class presentation. It focuses on *Siddha* principles like *Varmam origin, Nadi-Vayu concepts,* cosmic energy, diagnostic logic, and integrative care in children using both classical and modern frameworks. Instructions to Students: Students will complete three assessment components: (1) An online quiz covering basic to advanced *Varmam* concepts; (2) A viva voce to test clinical reasoning and *Siddha* diagnostic skills; and (3) A class presentation on a selected subtopic from the module. Avoid use of mobile phones or external references. Instructions to Teachers: Prepare a 10-question online quiz (MCQs and short answers) covering key themes across Units 9.1 to 9.4. Assign individual presentation topics covering cosmic, diagnostic, or therapeutic components. During viva, evaluate understanding of *Varmam* classification, point mapping, and *Siddha* rationale using structured rubrics for reasoning, clarity, and integration. Mark Distribution: The total marks for this assessment are 25. Online Quiz carries 8 marks, testing factual recall and comprehension. Class Presentation is allotted 10 marks, judged on content clarity, *Varmam* integration, and delivery. Viva Voce carries 7 marks, focusing on diagnostic reasoning, application of therapy, and communication confidence. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	4

Module 10 : ?????????????? ?????? ???????? ??????? Kuzhanthaigalukkaana Varmam Maruthuva Muraigal (Paediatric Varmam Therapeutics)

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

Identify critical pediatric *Varmam* points and their regional applications.
Explain ethical and clinical protocols for administering pediatric *Varmam.*
Demonstrate *Varmam* techniques for gastrointestinal and respiratory symptoms.
Apply appropriate *Varmam* therapy in managing pediatric neurological disorders.
Apply *Varmam* principles in treating behavioral and metabolic pediatric conditions.
Integrate *Varmam* therapy with Siddha interventions in congenital and developmental disorders.

M 10 Unit 1 ???? ??????????? ?????? ??????? ????????????? - Varamam Pulligalin Vagaigal matrum Irupidngal Classification and Locations of Varmam Points

10.1.1 Vital *Varmam* Points – *Padu Varmam, Thodu Varmam, Thattu Varmam,* spasticity management, muscular disorders, life-force centers.
10.1.2 Internal *Varmam* Points – *Ul Varmam,* chronic illness intervention, congenital defect management, systemic energy flow, deep *Varmam* stimulation, internal regulation.
10.1.3 Compression Techniques – *Odukki Varmam,* emergency care, acute symptom relief, pressure dynamics, revival methods, rapid pediatric response strategies.
10.1.4 *Aadhara Varmam* Zones – Vital organ support, systemic harmony, *Aadharam*-linked points, targeted energy flow, organ-specific *Varmam* application.
10.1.5 Regional Applications – Head, trunk, limb, neck Varmam maps, speech delay correction, neuromuscular disorders and therapeutic precision.

References: 16,18,20,24,52,55,56,57

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO8	Identify key *Varmam* points—*Paduvarmam, ThoduVarmam, ThattuVarmam*—and their roles in pediatric treatments.	1	Lecture	CAN	Knows-how	D-M,L_VC,D,D-BED

CO3,CO5,CO8	Discuss Ulvarmam and OdukkiVarmam use in chronic, congenital, critical pediatric condition management.	1	Lecture	CC	Knows-how	D-BED,L_VC,D-M,CBL
CO3,CO5,CO8	Describe regional Varmam points and techniques for motor improvement in pediatric developmental disorders and scoliosis.	1	Lecture	CAN	Knows-how	D-BED,D,D-M,CBL
CO1,CO3,CO5,CO8	Demonstrate internal and emergency *Varmam* techniques for pediatric care.	3	Practical Training 10.1	PSY-GUD	Shows-how	SIM,PAL,D-M
CO3,CO5,CO6	Demonstrate *Adhara Varmam* techniques for pediatric organ-specific support.	3	Practical Training 10.2	PSY-GUD	Shows-how	D,CBL,PL
CO3,CO5,CO7	Apply region-specific *Varmam* techniques in pediatric therapeutic contexts.	3	Practical Training 10.3	PSY-GUD	Shows-how	PAL,D,TPW,W
CO3,CO4,CO5	Demonstrate guided *Varmam* techniques for pediatric symptom management	2	Experiential-Learning 10.1	PSY-MEC	Does	D-BED,SIM
CO3,CO5,CO8	Apply *Varmam* techniques for improving pediatric motor development	3	Experiential-Learning 10.2	PSY-ADT	Does	SIM,D-BED

M 10 Unit 2 ???? ???????????? ????????? ??????????? ??????? ??????????? - Varma Sikitchiyen Vazhikkattinerimuraigal amtrum Payanpadugal Ethical Guidelines and Therapeutic Applications of Varmam

10.2.1 Ethical Guidelines – Informed consent, child safety, non-invasive practice, practitioner accountability, compassionate care, parental communication, ethical handling standards.
10.2.2 Clinical Protocols – Standardized pediatric assessment, point selection criteria, diagnosis workflow, treatment timing, contraindications, *Varmam* session structuring.
10.2.3 Therapeutic Methods – Pressure intensity calibration, session frequency, age-based modification, duration guidelines, condition-specific techniques,.
10.2.4 Integrated Models – Siddha-scientific medicine coordination, multidisciplinary collaboration, case documentation, outcome tracking and pediatric

rehabilitation integration.

References: 15,55,56

3A	3B	3C	3D	3E	3F	3G
CO3,CO5,CO8	Describe ethical and clinical guidelines for pediatric Varmam therapy, emphasizing consent, safety, and effectiveness.	1	Lecture	CAN	Knows-how	D,L&PPT,L_VC,L
CO6,CO7,CO8	Perform ethical, clinical, and integrative frameworks for pediatric *Varmam care.*	3	Practical Training 10.4	CE	Shows-how	DIS,PAL,LS
CO3,CO7,CO8	Value ethical conduct and evaluate safety in pediatric *Varmam* care	3	Experiential-Learning 10.3	AFT-VAL	Does	RP,DIS,W,C_L
CO3,CO5,CO6	Perform safe *Varmam* application and value caregiver trust-building	3	Experiential-Learning 10.4	AFT-VAL	Shows-how	W,PAL,SIM,D
CO3,CO5,CO8	Discuss integrating Varmam with conventional pediatric care for holistic management of childhood disorders.	1	Lecture	CC	Knows-how	L,L&PPT,L&GD,L_VC

M 10 Unit 3 ??????? ????????????????????? ???? ???????????? - Pothuvana Noikurikunangalukku Varama Seyalmuraigal Practical Applications of Varmam for Common Pediatric Symptoms

10.3.1 Gastrointestinal Symptoms – Colic relief, constipation correction, indigestion management, appetite stimulation, abdominal *Varmam* points.
10.3.2 Respiratory Symptoms – Bronchitis alleviation, asthma control, wheezing reduction, nasal congestion relief, thoracic and facial *Varmam* stimulation.
10.3.3 Neurological Symptoms – Seizure management, headache relief, motor delay improvement, milestone enhancement, cranial and spinal *Varmam* activation.
10.3.4 Metabolic Disorders – Pediatric obesity, juvenile diabetes, hormonal imbalance regulation, glandular *Varmam* points.
10.3.5 Behavioral Disorders – ADHD focus enhancement, emotional regulation, learning disability support, calming points, cognitive stability, psycho-behavioral *Varmam* application.

References: 15,55,56,77

3A	3B	3C	3D	3E	3F	3G
CO3,CO5,CO6	Demonstrate *Varmam* techniques for managing gastrointestinal and respiratory symptoms in children.	2	Practical Training 10.5	PSY-MEC	Shows-how	D-M,SIM ,RLE
CO3,CO4,CO6	Demonstrate *Varmam* interventions for behavioral and cognitive regulation in children.	3	Practical Training 10.6	PSY-GUD	Shows-how	RLE,D-M,SIM
CO3,CO4,CO5	Apply *Varmam* techniques for GI relief using guided simulation	3	Experiential-Learning 10. 5	PSY-MEC	Does	SIM,PL,D-M
CO3,CO4,CO6	Apply *Varmam* points for pediatric respiratory symptom management	3	Experiential-Learning 10. 6	PSY-MEC	Shows-how	PL,D,SIM
CO3,CO4,CO8	Analyze neurological symptoms and apply targeted *Varmam therapy*	3	Experiential-Learning 10. 7	CAN	Does	DIS,SIM, PL,CBL
CO3,CO4,CO6	Analyze *Varmam* application and perform observation-based interpretation	3	Experiential-Learning 10. 8	AFT-VAL	Does	PL,TBL, CBL
CO1,CO3,CO8	Describe Varmam therapy for pediatric gastrointestinal, respiratory, neurological conditions like colic, asthma, seizures.	1	Lecture	CAN	Knows-how	D-BED,D-M,D
CO1,CO3,CO8	Discuss the use of Varmam techniques for managing pediatric metabolic disorders, such as juvenile diabetes.	1	Lecture	CC	Knows-how	D-M,D-BED,CBL, D
CO1,CO3,CO8	Discuss Varmam therapy applications for pediatric behavioral issues like Attention-Deficit/Hyperactivity Disorder (ADHD) and learning disabilities.	1	Lecture	CAN	Knows-how	D-BED,D ,D-M

M 10 Unit 4 ??????? ???????????????? ???? ???????????? - Pothuvana Noinilaikalukku Varmam Seyalmuraigal - Practical Applications of Varmam for Common Pediatric Disorders

10.4.1 Neurological Disorders – Cerebral palsy, epilepsy, motor delays, neural circuit modulation, neurodevelopmental *Varmam* points, pediatric nervous system regulation.
10.4.2 Musculoskeletal Disorders – Scoliosis, clubfoot, kyphosis, muscular dystrophy, joint flexibility, postural correction, mobility restoration, skeletal-muscle point mapping.
10.4.3 Developmental Disorders – Autism spectrum disorder, intellectual disability, global delay, sensory regulation, calming techniques, behavior-modifying *Varmam* points.
10.4.4 Congenital Disorders – Congenital heart defects, spina bifida, craniofacial syndromes, functional stimulation, structural balance correction.
10.4.5 Multimodal Pediatric *Varmam* Practice – Rehabilitation co-therapy, yoga-based synergy, holistic outcome maximization, functional development tracking.

References: 17,50,55,56

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO5	Demonstrate *Varmam* techniques for neurological regulation and motor improvement.	3	Practical Training 10.7	PSY-GUD	Shows-how	D-BED,SIM,RLE
CO2,CO3,CO8	Apply *Varmam* techniques for musculoskeletal alignment and symptom relief	3	Experiential-Learning 10.9	AFT-VAL	Does	PBL,PAL,D-BED
CO1,CO3,CO8	Describe Varmam therapy for pediatric neurological and musculoskeletal disorders like cerebral palsy, scoliosis, dystrophy.	1	Lecture	CAN	Knows-how	D,D-BED,D-M,CBL
CO1,CO3,CO8	Discuss Varmam's role in managing autism, developmental delays, and congenital pediatric disorders holistically.	1	Lecture	CC	Knows-how	D,CBL,D-M,D-BED

Practical Training Activity

Practical Training 10.1 : Application of Internal *Varmam* Points and Compression Techniques in Pediatrics

Total Duration of the Activity:3 Hours
Instructions to Students (First 30 Minutes): Teacher will demonstrate the anatomical location and application of *Ul Varmam* (Internal Varmam) points using models. Students will observe simulations of pediatric scenarios involving chronic illness or congenital defects and learn compression techniques like *Odukki Varmam* for emergency and acute symptom relief. Teacher will guide students on pressure application dynamics and systemic regulation.
Students' Activities (Next 120 Minutes):
Step – 01 (60 Minutes): Students will identify and mark *Ul Varmam* points on anatomical charts or models. They will participate in peer-led simulations to observe and document the influence of deep *Varmam* stimulation on systemic regulation in chronic pediatric conditions.
Step – 02 (60 Minutes): Students will practice *Odukki Varmam* techniques on models simulating acute pediatric emergencies. They will apply controlled compression for revival and relief, documenting response patterns. A poster on pediatric emergency *Varmam* care will be prepared and peer-reviewed.
Assessment (Final 30 Minutes): Teacher will evaluate students using Mini-CEX during simulated *Varmam* application scenarios. Posters will be assessed for clarity and clinical relevance. DOPS will be used to assess pressure accuracy, safety, and technique during demonstration of *Ul* and *Odukki Varmam* practices.

Practical Training 10.2 : *Adhara Varmam* Zones – Vital Organ Support and Systemic Harmony in Pediatrics

Total Duration of the Activity: 3 Hours
This practical session introduces students to the anatomical location and clinical significance of *Adhara Varmam* zones in pediatric care. Students will study *Adharam*-linked points that regulate systemic harmony and support the function of vital organs. Through hands-on demonstrations and peer-assisted simulations, students will learn targeted application techniques and document physiological responses. A poster will be prepared on organ-specific *Varmam* applications for pediatric health.
Instructions to Students (First 30 Minutes): Teacher will demonstrate the anatomical mapping of *Adhara Varmam* zones using models. Students will observe simulations of pediatric conditions affecting vital organs (e.g., heart, liver, lungs) and learn how to localize and apply Varmam stimulation for systemic energy flow and organ function regulation.
Students' Activities (Next 120 Minutes):
Step – 01 (60 Minutes): Students will identify and mark *Adhara Varmam* points on pediatric anatomical models. They will simulate pressure techniques on peers or models to observe organ-specific therapeutic effects and systemic response.
Step – 02 (60 Minutes): Students will prepare a peer-reviewed poster illustrating the role of *Adhara Varmam* in supporting specific organ systems. They will present anatomical location, application method, clinical relevance, and expected benefits.
Assessment (Final 30 Minutes): Teacher will evaluate students using Mini-CEX for practical skill execution and peer engagement. Posters will be assessed for anatomical accuracy, clinical relevance, and clarity. DOPS will be employed to assess precision in locating and stimulating Adhara Varmam points.

Practical Training 10.3 : Regional Application of *Varmam* Points in Pediatric Care

Total Duration of the Activity:3 Hours

This session focuses on the regional application of *Varmam* techniques in pediatric care. Students will study and palpate *Varmam* points located on the head, trunk, limbs, and neck. The practical emphasizes anatomical mapping, regional therapeutic indications, and the construction of focused treatment plans. A hands-on workshop format will facilitate collaborative learning and in-depth exploration of organ and limb-specific *Varmam strategies.*

Instructions to Students (First 30 Minutes): Teacher will introduce regional *Varmam* maps and demonstrate key points on models corresponding to the head, neck, trunk, and limbs. Students will observe applications and discuss the physiological influence of each region. The teacher will then divide students into groups and assign a simulated pediatric case per group.

Students' Activities (Next 120 Minutes):

Step – 01 (60 Minutes): Students will identify and palpate regional *Varmam* points on anatomical models or simulated peers. Each team will map the *Varmam* points relevant to their assigned region (e.g., limb, head) and document therapeutic roles and contraindications.

Step – 02 (60 Minutes): Each group will design a region-specific treatment outline tailored to their pediatric case scenario. They will prepare a visual chart and present their approach, highlighting point selection, intended effects, and care planning.

Assessment (Final 30 Minutes): Teacher will assess students through practical identification of *Varmam points* on models. Group charts will be reviewed for anatomical accuracy and clinical relevance. Presentations will be evaluated for clarity, integration of *Varmam* theory, and feasibility of the proposed regional pediatric intervention.

Practical Training 10.4 : Ethical Guidelines, Clinical Protocols, and Integrated Models in Pediatric *Varmam* Practice

Total Duration of the Activity:3 Hours

This session enables students to explore and critically reflect on the ethical foundations, clinical protocols, and integrative approaches of pediatric *Varmam care*. Through peer-led discussions and guided library research, students will analyze ethical considerations such as informed consent and non-invasive methods, review standardized diagnostic and treatment protocols, and evaluate coordination models between *Siddha* and allopathic systems. Students will compile guidelines and critique integrative models applied in pediatric rehabilitation.

Instructions to Students (First 30 Minutes): Teacher will introduce key reading materials and guidelines on pediatric ethics, protocol design, and integrative models in *Varmam.* Students will be grouped and assigned thematic areas (Ethics, Protocols, Integration) to explore using printed and digital library resources. Focus will be on identifying best practices and critical standards.

Students' Activities (Next 120 Minutes):

Step – 01 (First 60 Minutes): Students will review assigned topics in the library, compiling key points related to ethical conduct, clinical protocols, or integrative frameworks. They will summarize essential components, identify challenges, and prepare brief thematic presentations.

Step – 02 (Next 60 Minutes): Each group will present their critical findings and discuss how ethical and clinical protocols enhance pediatric safety and outcomes. Groups will propose improvements to current integrative practices and submit a compiled report for peer and trainer evaluation.

Assessment (Final 30 Minutes): Teacher will evaluate students based on the depth and clarity of their compilations, engagement in critical reading tasks, and quality of insights shared in presentations. Trainer's report will document individual participation, understanding of ethical and clinical standards, and contributions to team-based learning outcomes.

Practical Training 10.5 : *Varmam* Application for Pediatric Gastrointestinal and Respiratory Symptom Relief

Total Duration of the Activity: 2 Hours
This practical session provides hands-on training for applying specific *Varmam* techniques to address pediatric gastrointestinal and respiratory symptoms. Students will learn and practice stimulation of abdominal and thoracic *Varmam* points to support digestive health and respiratory function, guided by traditional principles and clinical safety considerations.
Instructions to Students (First 20 Minutes): Teacher will demonstrate the anatomical location and pressure techniques for *Varmam* points related to gastrointestinal (e.g., colic, constipation, appetite) and respiratory (e.g., bronchitis, asthma, nasal congestion) conditions. Simulated pediatric cases will be used to demonstrate symptom-based point selection and modulation techniques.
Students' Activities (Next 80 Minutes – 40 + 40):
Step – 01 (First 40 Minutes): Students will practice locating and stimulating abdominal *Varmam* points on models or simulated patients. They will simulate care strategies for conditions such as colic, indigestion, and appetite issues, documenting clinical responses.
Step – 02 (Next 40 Minutes): Students will apply *Varmam* stimulation techniques for respiratory complaints like wheezing and nasal congestion. They will work in teams to document and discuss energy flow dynamics and symptomatic relief, and compile their findings in a structured observation record.
Assessment Methods (Final 20 Minutes): Teacher will assess students using Mini-CEX for technique demonstration, DOPS for anatomical accuracy and pressure control, and peer assessment for teamwork and procedural confidence during simulated patient interaction.

Practical Training 10.6 : *Varmam* Applications for Pediatric Behavioral Disorders

Total Duration of the Activity: 3 Hours
This practical session trains students in identifying and applying *Varmam* techniques for common pediatric behavioral disorders such as Attention-Deficit/Hyperactivity Disorder (ADHD), emotional dysregulation, and learning disabilities. Emphasis will be placed on locating and stimulating specific calming and cognitive-regulating points to improve focus, emotional control, and learning capacity in children.
Instructions to Students (First 30 Minutes): Teacher will demonstrate behavioral *Varmam* point locations and simulate relevant clinical conditions using models or real-life scenarios. Students will observe behavioral cues and learn how to apply stimulation protocols effectively. Teacher will explain the role of each *Varmam* point in emotional and cognitive regulation.
Students' Activities (Next 120 Minutes):
Step – 01 (60 Minutes): Students will identify and mark calming and cognitive-regulation *Varmam* points on anatomical models. They will simulate behavioral case responses using peer or patient role-plays and record changes in observable symptoms.
Step – 02 (60 Minutes): Students will develop behavioral care plans incorporating psycho-behavioral *Varmam* techniques for simulated pediatric scenarios. They will also participate in real-time observation and documentation of behavioral responses to *Varmam* application in a controlled setting.
Assessment Methods (Final 30 Minutes): Teacher will assess students using Mini-CEX during real-time simulation exercises. DOPS will be applied to evaluate point accuracy, safety of application, and communication skills. Practical viva will assess understanding of behavioral symptoms, appropriate point selection, and integration into

pediatric management protocols.

Practical Training 10.7 : *Varmam* Applications for Pediatric Neurological Disorders and Symptoms

Total Duration of the Activity: 3 Hours
This practical session introduces students to *Varmam* interventions for pediatric neurological disorders including cerebral palsy, epilepsy, and motor delays. Students will locate and stimulate relevant cranial, spinal, and neural *Varmam* points that aid in seizure control, motor improvement, and neurodevelopmental enhancement. Emphasis will be on functional outcomes and milestone progress.
Instructions to Students (First 30 Minutes): Teacher will demonstrate cranial and spinal *Varmam* point identification using anatomical models. Students will observe simulated neurological symptoms such as spasticity, seizure mimicry, and delayed responses. Teacher will guide students through appropriate stimulation methods and expected therapeutic effects.
Students' Activities (Next 120 Minutes):
Step – 01 (60 Minutes): Students will identify and mark neurodevelopmental *Varmam* points on models and practice stimulation protocols on simulated patients. Focus will be on seizure modulation, tone reduction, and gross motor enhancement.
Step – 02 (60 Minutes): Students will develop case-based care plans integrating *Varmam* techniques for pediatric neurological conditions. They will present neurological assessments, point selection rationale, and documentation of changes in simulated patient responses.
Assessment Methods (Final 30 Minutes): Teacher will assess clinical and technical performance using Mini-CEX during simulation. DOPS will be used to evaluate stimulation technique, anatomical precision, and student interaction. Practical viva will test knowledge on neurological disorders, therapeutic logic, and treatment outcome tracking.

Experiential learning Activity

Experiential-Learning 10.1 : Vital *Varmam* Techniques for Pediatric Symptom Relief

Total Duration of the Activities 2 Hours
This hands-on session trains students in applying Vital Pediatric *Varmam Points*, specifically *Padu Varmam, Thodu Varmam, and Thattu Varmam* techniques, using safe, gentle pressure suitable for infants and young children. Under expert supervision, students practice *Varmam* stimulation methods targeting sleep disturbances, mild digestive issues, and behavioral restlessness. The workshop emphasizes pressure safety, anatomical precision, and therapeutic intent. Students rotate between practice, feedback, and documentation, reinforcing their psychomotor competence and clinical decision-making in pediatric *Siddha care.*
Instructions to Students (First 15 Minutes) Teacher will demonstrate the correct application of *Padu Varmam, Thodu Varmam, and Thattu Varmam* techniques. Students will be briefed on pediatric use-cases, therapeutic benefits, pressure control, and contraindications. Focus will be on safe technique execution, awareness of anatomical landmarks, and individualized touch dosage for children.
Students' Activities (Next 90 Minutes)
Step – 01 (45 Minutes): Students will perform *Varmam* applications on models or peers, focusing on sleep-related discomfort, infantile colic, or agitation. Techniques must

reflect the pediatric sensitivity and prescribed touch intensity. Observations will be recorded in structured logbooks.
Step – 02 (45 Minutes): Students will exchange roles and provide peer feedback on technique, accuracy, and pressure control. Students will refine their practice and participate in guided reflection discussions, emphasizing therapeutic confidence and anatomical familiarity.
Assessment (Final 15 Minutes) Teacher will assess students using Practical Performance Checklists, evaluating pressure control, anatomical accuracy, and procedural sequence. OSCE stations will assess clinical safety and effectiveness of techniques. Clinical Work Sampling will capture consistency across peer feedback and documentation accuracy.

Experiential-Learning 10.2 : Region-Specific *Varmam* Techniques for Pediatric Motor Development

Total Duration of the Activities 3 Hours
This hands-on workshop trains students in region-specific *Varmam therapies* targeting pediatric motor development concerns such as speech delay, scoliosis, and limb weakness. Under teacher supervision, students will practice identification and stimulation of *Varmam* points across the head, neck, trunk, and limbs. The session emphasizes safety, touch precision, and therapeutic intent for improving motor milestones. Learners will apply these skills in a simulated pediatric case, documenting customized treatment plans based on observed symptoms and *Varmam principles.*
Instructions to Students (First 20 Minutes): Teacher will demonstrate *Varmam* point location and technique for head, trunk, and limb regions. Safety precautions, pediatric adaptations, and indications for motor development issues will be discussed. Students will be instructed to observe carefully and take structured notes for reference during practical sessions.
Students' Activities (Next 140 Minutes)
Step – 01 (70 Minutes): Students will practice palpation and application of *Varmam points* in the head and trunk, targeting issues like speech delay and scoliosis. Emphasis will be on accurate anatomical localization and safe stimulation techniques.
Step – 02 (70 Minutes): Students will work on limb *Varmam points*, applying techniques aimed at enhancing strength, tone, and coordination. Each student will design a treatment outline for a simulated pediatric motor delay case, noting point selection, rationale, and therapeutic goals.
Assessment (Final 20 Minutes): Teacher will assess each student's technical skill using Direct Observation of Procedural Skills (DOPS) and Practical Performance rubrics. A Practical Role Play will simulate communication of the treatment plan, allowing evaluation of clarity and clinical reasoning. Feedback will focus on anatomical accuracy, patient safety, and application logic.

Experiential-Learning 10.3 : Ethics and Safety Protocols in Pediatric *Varmam* Therapy

Total Duration of the Activities 3 Hours
This workshop aims to instill ethical awareness and safety consciousness among students practicing pediatric *Varmam therapy.* Through interactive role-play and real-life case discussions, students will explore the essentials of informed consent, child protection, caregiver communication, and professional boundaries. Guided by the teacher, students will analyze ethical dilemmas, participate in decision-making activities, and reflect on how to uphold integrity and empathy in *Siddha* pediatric care.
Instructions to Students (First 20 Minutes) Teacher will provide an overview of ethical principles in pediatric *Varmam practice*, focusing on guardian consent, child

autonomy, and confidentiality. Students will be introduced to key safety protocols, including communication standards and boundary-setting. Engage in group discussion to understand the importance of empathy, respect, and professional conduct.
Students' Activities (Next 140 Minutes)
Step – 01 (70 Minutes): Students will participate in structured role-play scenarios simulating caregiver interactions during pediatric *Varmam treatment.* The scenarios will address obtaining informed consent, explaining procedures, handling guardian hesitation, and responding to child discomfort. Students will reflect on ethical dilemmas encountered and discuss possible resolutions.
Step – 02 (70 Minutes): Students will form small groups to review case studies highlighting ethical and safety concerns in pediatric *Siddha practice.* They will evaluate actions taken, propose improvements, and record ethical guidelines relevant to *Varmam* application. Each student will begin writing a reflective report on insights gained and ethical principles learned.
Assessment (Final 20 Minutes) Teacher will assess students' engagement through Practical Role Play evaluation rubrics, focusing on communication clarity and ethical reasoning. Peer Assessment will be used to reflect group collaboration and responsibility. A Trainer's Report will summarize student participation, ethical understanding, and adherence to pediatric safety protocols.

Experiential-Learning 10.4 : Safe Clinical Protocols for Pediatric *Varmam* Therapy

Total Duration of the Activities 3 Hours
This session focuses on equipping students with the practical and ethical competencies required for delivering *Varmam therapy* in pediatric clinical settings. Through faculty-led demonstrations and simulation-based practice, students will learn standardized safety protocols—covering pressure limits, anatomical positioning, session duration, and comfort measures. Peer-assisted learning and checklist-based monitoring reinforce accuracy, therapeutic safety, and communication strategies for building caregiver confidence.
Instructions to Students (First 30 Minutes) Teacher will demonstrate safe pediatric *Varmam* application, including child-friendly positioning, pressure control, and session duration. Students will be introduced to safety checklists for pre-treatment setup, real-time child monitoring, and post-treatment follow-up. Emphasis will be placed on clinical responsibility and building trust through standardized procedures.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice *Varmam therapy* protocols on simulation dummies or anatomical models. Each student will ensure correct technique and safety using a pre-defined checklist. Focus will be on adjusting techniques for pediatric needs and minimizing discomfort or procedural risk.
Step – 02 (60 Minutes): Students will document their observations and complete a safety protocol checklist. Each student will write a short reflective piece on how protocol adherence impacts treatment outcomes and caregiver confidence. Peer feedback will be encouraged to identify areas of improvement.
Assessment (Final 30 Minutes) Teacher will conduct Direct Observation of Procedural Skills (DOPS) to assess technical accuracy, pressure control, and patient safety adherence. A Mini-CEX will be used to evaluate communication and responsiveness during simulated interactions. Practical Performance will be graded based on safety protocol compliance, checklist use, and peer interaction.

Experiential-Learning 10.5 : Simulation Workshop on *Varmam* for Pediatric Gastrointestinal Symptoms

Total Duration of the Activities 3 Hours
Students will participate in a simulation-based workshop focused on *Varmam* techniques for common pediatric gastrointestinal complaints such as colic, constipation, and indigestion. Faculty will demonstrate abdominal *Varmam* points and explain their effects on digestive modulation. Students will practice these techniques on anatomical models, ensuring correct point identification, pressure control, and safety. The workshop emphasizes non-invasive, comfort-oriented therapy for young children and highlights how *Siddha* techniques promote holistic digestive health.
Instructions to Students (First 20 Minutes) Teacher will demonstrate abdominal *Varmam* points used for gastrointestinal symptoms, covering proper finger techniques, child positioning, and session duration. Safety protocols and expected responses will be reviewed. Students will be encouraged to ask questions for clarity before starting simulation.
Students' Activities (Next 140 Minutes)
Step – 01 (70 Minutes): Students will practice *Varmam point* activation on simulation models for colic and constipation relief. Each student will follow documented steps, apply correct pressure, and note the procedural sequence and simulated response.
Step – 02 (70 Minutes): Students will engage in group discussions about the physiological rationale behind *Varmam* techniques. Each student will write a reflective summary on the comfort and effectiveness of gentle *Varmam therapy* in children and how non-invasive methods enhance pediatric care.
Assessment (Final 20 Minutes) Teacher will use Direct Observation of Procedural Skills (DOPS) to assess precision, safety, and pressure technique. Practical Performance will evaluate students' application skills, and Practical Role Play will assess communication style and ability to simulate caregiver guidance during a treatment session.

Experiential-Learning 10.6 : *Varmam Therapy* Practice for Pediatric Respiratory Symptoms

Total Duration of the Activities 3 Hours
This practical session trains students to use *Varmam* techniques for pediatric respiratory complaints including asthma, bronchitis, and nasal congestion. Under supervision, students will locate and stimulate thoracic and facial *Varmam points* to aid bronchodilation, mucus clearance, and airflow regulation. Students will document pressure techniques and learn to integrate *Varmam therapy* with supportive respiratory care. The session promotes safe application, comfort-focused practice, and peer reflection to enhance clinical skill and therapeutic confidence.
Instructions to Students (First 30 Minutes) Teacher will demonstrate *Varmam* points used in respiratory care and explain the role of each in alleviating symptoms like wheezing, congestion, and shallow breathing. Students will be guided on the application method, safety protocols, and comfort strategies. Prepare to practice on models with documented pressure guidelines.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice *Varmam* stimulation on simulation models focusing on asthma relief, nasal congestion, and bronchitis alleviation. Documentation will include point names, pressure techniques, and observed comfort responses.
Step – 02 (60 Minutes): Students will prepare a *Varmam* point checklist mapped to common respiratory disorders. In peer groups, they will discuss integration of *Varmam* with modern pediatric respiratory therapies and reflect on how the combined approach improves patient comfort and recovery.
Assessment (Final 30 Minutes) Teacher will assess skill performance using Direct Observation of Procedural Skills (DOPS) and Practical Performance rubrics. Practical

Role Play will evaluate peer interaction, communication clarity, and safety adherence. Students will also submit checklists and group discussion summaries for final review.

Experiential-Learning 10.7 : Case-Based *Varmam Therapy* Planning for Pediatric Neurological Disorders

Total Duration of the Activities 3 Hours

This case-based experiential session trains students to apply *Varmam therapy* for pediatric neurological symptoms such as seizures, headaches, motor delays, and cerebral palsy. Working in small groups, students will analyze clinical cases, identify relevant cranial and spinal *Varmam points*, and formulate individualized treatment plans. The session encourages holistic integration with supportive therapies such as physiotherapy and nutrition, reinforcing the role of *Varmam* in neurodevelopmental regulation. Students will present their plans and reflect on the role of *Varmam* in non-invasive pediatric neurological care.

Instructions to Students (First 30 Minutes) Teacher will distribute case scenarios involving pediatric neurological symptoms and provide a briefing on *Varmam point* selection for seizure relief, motor coordination, and developmental delay. Students will receive guidance on integrating physiotherapy and dietary support with *Varmam* techniques and expected outcomes. Prepare to analyze, map, and present findings.

Students' Activities (Next 120 Minutes)

Step – 01 (60 Minutes): Students will work in small groups to analyze symptoms and identify appropriate *Varmam* techniques for each neurological condition. They will document selected points, explain rationale for their use, and describe how *Varmam* modulates neurological circuits and promotes pediatric development.

Step – 02 (60 Minutes): Students will present their case analysis and proposed *Varmam* therapy plan to peers. Presentations will include justification for point selection, method of application, expected outcomes, and how *Varmam* enhances pediatric quality of life when combined with supportive therapies.

Assessment (Final 30 Minutes) Teacher will evaluate group presentations using Case-Based Assessment tools and assess point mapping accuracy and rationale. Direct Observation of Procedural Skills (DOPS) will be used to evaluate technique understanding, and Practical Performance will assess clinical reasoning and communication clarity.

Experiential-Learning 10.8 : Clinical Observation of *Varmam Therapy* in Pediatric Metabolic Disorders

Total Duration of the Activities 3 Hours

Students will attend a live clinical demonstration of Varmam therapy in pediatric patients diagnosed with metabolic disorders such as juvenile diabetes and obesity. This session focuses on understanding the selection and application of *Varmam points* to regulate metabolism, enhance energy circulation, and support holistic management. Emphasis is placed on observing case-specific modifications, integrating *Varmam* with dietary and lifestyle recommendations, and reflecting on its complementary role in pediatric chronic disease care.

Instructions to Students (First 30 Minutes) Teacher will guide students to observe *Varmam* application in real pediatric metabolic cases. Focus on point selection, technique modification based on age and condition, and clinical rationale. Engage in small group discussions to correlate observations with *Siddha* metabolic principles and integrative care strategies.

Students' Activities (Next 120 Minutes)

Step – 01 (60 Minutes): Students will document *Varmam points* used, pressure techniques, and observed outcomes. In peer groups, analyze each point's role in modulating

metabolism, supporting insulin action, and managing pediatric obesity.
Step – 02 (60 Minutes): Students will write an individual reflection on the relevance of personalized care in *Varmam* therapy. Peer groups will discuss case integration of *Varmam* with diet, lifestyle, and long-term care, presenting strategies for sustainable pediatric metabolic health.
Assessment (Final 30 Minutes) Teacher will assess students using Practical Performance checklists and Case-Based Assessment tools. DOAP evaluations will assess procedural understanding. Viva will evaluate clinical reasoning and insight. Peer Assessment will reflect teamwork, engagement, and depth of case-based discussion.

Experiential-Learning 10.9 : Application of *Varmam* Techniques in Pediatric Musculoskeletal and Developmental Disorders

Total Duration of the Activities 3 Hours
Students will participate in a practical workshop focused on pediatric *Varmam therapy* for musculoskeletal disorders such as scoliosis, clubfoot, and developmental delays. The session involves bedside demonstrations and peer-assisted practice of specific *Varmam points* that promote musculoskeletal alignment, postural correction, mobility enhancement, and sensory regulation. Students will reflect on how these non-invasive techniques integrate with conventional therapies and support functional rehabilitation in pediatric care.
Instructions to Students (First 20 Minutes) Teacher will demonstrate key *Varmam points* for musculoskeletal and developmental disorders. Students must observe the location, pressure technique, and precautions while working on pediatric cases. Group discussion will follow on point-specific indications and therapeutic effects.
Students' Activities (Next 140 Minutes)
Step – 01 (70 Minutes): Students will practice identifying and stimulating *Varmam points* for scoliosis and clubfoot using models or peers under supervision. Each student will document pressure techniques, anatomical landmarks, and clinical purpose of the applied *Varmam.*
Step – 02 (70 Minutes): Students will discuss the complementary role of *Varmam therapy* in supporting conventional orthopedic treatments like physiotherapy or bracing. A written reflection will be prepared on how *Varmam* may enhance long-term musculoskeletal function and developmental outcomes.
Assessment (Final 20 Minutes): Teacher will assess practical skills using Mini-CEX and Scenario-Based Assessment, evaluating accuracy in point application and understanding of therapeutic rationale. Peer Assessment will be used to gauge collaborative performance, clinical reasoning, and communication during bedside practice.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - This 25-mark Mini-CEX assessment evaluates practical competency in pediatric *Varmam* therapy. Students will demonstrate skill in identifying vital and internal *Varmam* points, applying compression and regional techniques, and observing ethical and clinical protocols. Emphasis is on therapeutic decision-making, touch-response precision, age-specific pressure application, and integrative clinical reasoning. Instructions to Students : Students will engage in direct clinical observation where they will demonstrate key *Varmam* techniques including identification of *Padu, Thodu, and Odukki points*, perform pressure modulation, and explain session structure and safety. Communication with caregivers, ethical	4

compliance, and therapy justification will be assessed. Follow Mini-CEX station tasks without reference materials.
Instructions to Teachers : Set up Mini-CEX stations focusing on *Varmam* therapy execution in simulated pediatric scenarios. Evaluate students on point localization, therapeutic touch, procedural steps, and ethical conduct. Use standardized checklists covering assessment planning, technique accuracy, interaction with guardians, and integrative application of Siddha principles. Provide structured feedback for improvement.
Mark Distribution: The 25 marks are distributed as follows: *Varmam Point* Identification and Accuracy – 7 marks; Therapeutic Application and Pressure Modulation – 6 marks; Session Structuring and Clinical Protocols – 5 marks; Ethical Communication and Consent Explanation – 4 marks; and Clinical Reasoning and Siddha Integration – 3 marks.
&
Section – B. This 25-mark OSPE assesses students' practical proficiency in applying pediatric *Varmam therapy* for diverse clinical conditions. Using anatomical models or simulated patients, students will identify relevant *Varmam* points and demonstrate techniques tailored for gastrointestinal, respiratory, neurological, metabolic, and behavioral disorders. Emphasis is on condition-based modulation and therapeutic precision.
Instructions to Students : Students will rotate through OSPE stations involving pediatric conditions such as colic, asthma, seizures, autism, or cerebral palsy. At each station, identify appropriate *Varmam* points and demonstrate application methods. Communicate therapeutic rationale confidently. No textbooks or electronic devices are permitted. Complete each station within the allocated time.
Instructions to Teachers : Design OSPE stations reflecting common pediatric conditions. Include models, charts, or simulated patient visuals. Evaluate students on their ability to localize *Varmam* points, apply appropriate pressure techniques, and explain therapeutic benefits. Use structured rubrics to assess skill execution, condition-specific reasoning, posture, communication, and integrative *Siddha* application.
The 25 marks are distributed across four OSPE stations. Station 1 carries 7 marks for accurate identification of Varmam points and clinical relevance. Station 2 evaluates condition-specific therapeutic demonstration for 6 marks. Station 3 assesses communication and clarity of patient or parent instructions for 5 marks. Station 4 awards 7 marks for integrating *Siddha principles* with a functional monitoring strategy.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

Semester No : 4

Module 11 : ?????????????? ???????????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuvathin Adiappadaigal (Foundations and Comprehensive External Therapies for Pediatrics)

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

Explain external therapeutic principles in Siddha pediatric care.
Classify and apply heat and immobilization therapies in children.
Demonstrate *Thokkanam and Varmam* in pediatric musculoskeletal disorders.
Evaluate the role of external Siddha treatments in ENT and skin conditions.
Apply Siddha techniques for neurological and developmental pediatric issues.
Apply *external therapies* for digestive, eye, and wound-related pediatric conditions.

M 11 Unit 1 ?????????????? ??????????? – Kuzhanthaikalukkana Puramaruthuvam- Pediatric Pura Maruthuvam

11.1.1 Introduction to Pediatric *Pura Maruthuvam – Siddha* external therapy foundations, non-invasive modalities, herbal applications, pediatric massage, heat therapy, skin and neuromuscular care.
11.1.2 Bone Development and Ossification in Children – Growth plate physiology, ossification stages, bone fragility, *Kattu, Thokkanam* adaptation, pediatric skeletal considerations.
11.1.3 Bio-Mechanics of Joints in Children – Pediatric joint mobility, structural variability, massage therapy alignment, *Varmam* application, neuromuscular enhancement, functional restoration.
11.1.4 Temperature's Effect on Muscles and Nerves – Muscle relaxation, nerve inflammation control, *Ottradam, Vedhu,* thermoregulation, circulation enhancement, spasm and stiffness relief.
11.1.5 Therapeutic Dose and Duration in Pediatric Care – Age-based dosage, therapy duration limits, sensitivity modulation, protocol customization, safety guidelines, pediatric response monitoring.

References: 35,111,114,124

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Adapt and comprehend pediatric *Pura Maruthuvam* principles: bone development, ossification, joint biomechanics.	1	Lecture	CAP	Know	L_VC,D-BED
CO3,CO4,CO6	Perform *Kattu and Thokkanam* adapting to pediatric skeletal maturity.	2	Practical Training 11.1	PSY-GUD	Shows-how	D,RLE

CO3,CO4,CO6	Apply *Siddha heat therapies* for *Ottradam, Vedhu, and Suttigai* in Pediatric diseases	2	Practical Training 11.2	PSY-MEC	Shows-how	D,RLE
CO3,CO5,CO6	Perform pediatric *Thokkanam* techniques to relieve musculoskeletal discomfort	4	Experiential-Learning 11.1	PSY-GUD	Does	W,PAL,D-BED
CO3,CO5,CO6	Apply observation to understand pediatric *Ottradam and Vedhu* adaptations	3	Experiential-Learning 11.2	AFT-RES	Does	PAL,SIM,D
CO1,CO2,CO3	Adapt and comprehend temperature effects on pediatric muscles, nerves, therapeutic dose, and treatment duration.	1	Lecture	CAP	Know	D-BED,L_VC

M 11 Unit 2 ?????????????? ??????????? ????????? ?????? – Kuzhanthaikalukkana Puramaruthuva Mauraigalin Vagaigal - Types of Siddha External Therapies for Children

11.2.1 Heat Applications *(Ottradam, Vedhu, Suttigai)* – Hot compress, *steam therapy*, cauterization, muscle stiffness relief, circulation enhancement, pain control, pediatric respiratory and neuromuscular support.
11.2.2 Immobilization Techniques *(Kombu Kattal, Kattu, Patru)* – Splinting, bandaging, compress application, joint stabilization, fracture support, deformity correction, pediatric orthopedic care.
11.2.3 Local Manipulation Techniques *(Thokkanam, Podithimurthal)* – Pressure point stimulation, herbal massage, powder massage, pain reduction, joint mobility restoration, pediatric-safe application.
11.2.4 Drug Applications *(Nasiyam, Kalikkam, Pugai, Kattu, Thuvalai)* – Nasal drops, eye drops, fumigation, medicated pastes and bandages, respiratory relief, sinus treatment, skin disorder management.
11.2.5 Local Blood Letting *(Attai Vidal, Keeral) – Leech therapy*, needle-based drainage, inflammation reduction, circulatory improvement, skin infection treatment, pediatric safety protocols.

References: 5,35,42,53,55,56,94,111,114,124,129

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO6	Administer *Nasiyam* and *Kalikkam* safely for pediatric conditions.	2	Practical Training 11.3	PSY-GUD	Shows-how	D,PL,SIM

CO1,CO2,CO3	Apply external pediatric therapies: heat applications, immobilization methods, and local manipulation techniques effectively.	1	Lecture	CAP	Know	D-BED,L_VC
CO3,CO4,CO6	Perform local bloodletting techniques ensuring pediatric safety and efficacy.	2	Practical Training 11.4	PSY-GUD	Shows-how	D,RLE,SIM
CO3,CO4,CO6	Perform *Siddha external therapies, Nasiyam,Pugai,Kattu,and Thuvalai* for effective care for pediatric patients.	2	Practical Training 11.5	PSY-MEC	Shows-how	SIM,D
CO3,CO5,CO6	Apply *Siddha* immobilization techniques adapted for pediatric use	4	Experiential-Learning 11.3	PSY-GUD	Does	W,D-BED,PAL
CO3,CO5,CO6	Perform *Podithimurthal* safely with pediatric adjustments and communicate empathetically	3	Experiential-Learning 11.4	PSY-GUD	Does	D,PL,RP,SIM
CO3,CO5,CO6	Evaluate pediatric use of *Attai Vidal* with ethical sensitivity	3	Experiential-Learning 11.5	AFT-VAL	Does	DIS,TBL,PAL,CBL
CO1,CO2,CO3	Apply pediatric external therapies: drug applications and local bloodletting for targeted treatment.	1	Lecture	CAP	Know	L_VC,D-BED

M 11 Unit 3 ???????????? ?????? ??? ???????????? ??????????? ???????? ??????? – Kuzhanthaikalin Narambu Thasai Noigalukkana Puramaruthuva Sikitchai Muraigal - Siddha External Therapies for Neurological and Musculoskeletal Disorders

11.3.1 *Sirasthambavatham* – Cerebral palsy, neurological dysfunction, *Thokkanam*, *Varmam* stimulation, motor coordination enhancement, physical rehabilitation.
11.3.2 *Balavatham and Thasaivatham* – Infantile hemiplegia, Muscular dystrophy, massage therapy, muscle tone regulation, mobility improvement.
11.3.3 *Enbu Murivu and Mootu Nazhuval* – Bone fractures, herbal compresses, *Kattu* application, pain reduction, musculoskeletal healing, pediatric orthopedic support.
11.3.4 Deformities like Kyphosis and Scoliosis – Spinal curvature disorders, posture correction, skeletal alignment, pressure relief techniques.
11.3.5 *Valippu* (Seizures) – Pediatric epilepsy, seizure frequency control, *Varmam* activation, nervous system modulation, herbal external applications, neuroprotective therapy.

References: 5,53,55,56,111,114,124

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO6	Demonstrate *external therapies* for correcting spinal deformities in children.	2	Practical Training 11.6	PSY-MEC	Shows-how	D,RLE,SIM
CO1,CO2,CO3	Analyze Thokkanam, Varmam, and herbal therapies for managing pediatric Sirasthambavadham.	1	Lecture	CAN	Know	L&GD,L&PPT,L_VC
CO1,CO2,CO3	Analyze the application of external therapies for Balavadham, Thasai vadham, Enbu murivu and Mootu nazhuval..	1	Lecture	CAN	Know	L&GD,L_VC,L&PPT
CO1,CO2,CO3	Analyze *Thokkanam, Varmam*, and herbal therapies for pediatric spinal deformities and seizure management.	1	Lecture	CAN	Know	L&GD,L&PPT,L_VC
CO3,CO4,CO5	Demonstrate safe pediatric *Suttigai* and value traditional interventions	3	Experiential-Learning 11.6	PSY-GUD	Does	SIM,PL,PBL
CO3,CO5,CO6	Analyze pediatric conditions and demonstrate therapeutic fumigation setup	3	Experiential-Learning 11.7	PSY-SET	Does	D,TBL,PL,PSM
CO3,CO4,CO6	Demonstrate *Siddha external therapies* for seizure control in children.	2	Practical Training 11.7	PSY-MEC	Shows-how	D,SIM,RLE

M 11 Unit 4 ???????? ????? ???????????? ??????????? ??????? - Udaliyakka Mandala Noinilaikallukana Pura maruthuva Muraigal - Applications of External Therapies for Systemic Diseases

11.4.1 Colic and Abdominal Pain – Pediatric colic, abdominal discomfort, digestive disturbances, *Pugai therapy, Nasiyam* and non-invasive abdominal care.
11.4.2 Dermatological Conditions *(Karappan, Kuttam)* – Herbal pastes, *Poochu* application, oil massage, inflammation control, skin regeneration, pediatric dermal

care.
11.4.3 ENT Conditions *(Nasiyam, Thuvalai, Poochu)* – Sinusitis, ear infections, nasal congestion, *Nasiyam, Thuvalai,* herbal rubs, ENT symptom relief, respiratory ease.
11.4.4 Eye Disorders *(Varmam, Kalikkam, Anjanam)* – Conjunctivitis, blurred vision, ocular clarity, eye irritation control.
11.4.5 Wound Healing and Abscesses *(Katti, Kazhalai, Pun)* – Skin wounds, abscess drainage, herbal bandages, *Kazhalai* cleansing, inflammation reduction, infection prevention, pediatric wound care.

References: 53,55,56,111,114,124,129

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO6	Apply external *Siddha therapies* for pediatric abdominal pain relief.	2	Practical Training 11.8	PSY-GUD	Shows-how	RLE,SIM,D
CO3,CO4,CO6	Perform *Siddha* wound care for pediatric abscess and skin injuries.	2	Practical Training 11.9	PSY-GUD	Shows-how	CBL,D
CO1,CO2,CO3	Describe external therapies for colic, abdominal pain, and Dermatological conditions like *Karappan and, Kuttam.*	1	Lecture	CAP	Know	DIS,L&PPT
CO1,CO2,CO3	Discuss external therapies like Nasiyam, Thuvalai, and Poochu for Ear, Nose, and Throat (ENT) conditions and *Varmam, Kalikkam,* and *Anjanam* for Eye disorders.	1	Lecture	CAP	Know	D,L&PPT,L_VC
CO1,CO2,CO3	Describe Wound healing and abscesses like *Katti, Kazhalai, and Pun.*	1	Lecture	CAP	Know	L&PPT,D,L_VC
CO3,CO4,CO6	Apply external *Siddha therapies* for pediatric skin conditions.	2	Practical Training 11.10	PSY-GUD	Shows-how	SIM,D
CO3,CO5,CO6	Demonstrate Ear, Nose, and Throat (ENT) external therapies and apply them to pediatric cases	3	Experiential-Learning 11.8	PSY-GUD	Does	D-BED,PSM

Practical Training Activity

Practical Training 11.1 : Application of *Kattu and Thokkanam* in Pediatric Care

Total duration of the activity - 2 hours

This practical introduces the application of *Siddha external therapies—Kattu* (herbal bandages) and *Thokkanam* (therapeutic massage)—in pediatric cases. Emphasis is placed on understanding skeletal development stages and tailoring techniques accordingly. Students will practice adapting pressure, strokes, and positioning for different pediatric age groups to ensure therapeutic effectiveness without compromising bone safety.

Instructions to Students (First 30 Minutes): Teacher will demonstrate the correct method of preparing and applying *Kattu and Thokkanam.* Anatomical models and developmental charts will be used to explain pediatric skeletal stages. Students will observe how to adjust pressure, stroke direction, and bandaging technique in accordance with ossification patterns and joint mobility in children.

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will practice *Kattu* application and *Thokkanam* strokes on simulation models or mannequins, focusing on adjusting techniques based on skeletal growth stages (infant, toddler, preschool).

Step – 02 (Next 30 Minutes): Students will document the biomechanical adaptations made during therapy. This includes rationale for stroke modification, pressure variation, and specific areas avoided or emphasized due to ossification or growth considerations.

Assessment Methods (Final 30 Minutes): Teacher will assess procedural skills using a checklist and DOPS. Peer feedback will be encouraged to enhance technique refinement. Observations will include technique accuracy, child-safety considerations, and the student's ability to explain modifications made during the application of *Kattu and Thokkanam.*

Practical Training 11.2 : Thermal Therapies: *Ottradam, Vedhu, and Suttigai* in Pediatric Care

Total duration of the activities 2 hours

This practical session introduces students to the application of *Siddha thermal therapies—Ottradam* (hot compress), *Vedhu* (steam therapy), and *Suttigai* (cauterization)—for managing selected pediatric diseases. Students will learn to identify suitable clinical indications and apply these techniques effectively to relieve muscle tension, reduce nerve inflammation, and enhance circulation in pediatric patients.

Instructions to Students (First 30 Minutes): Teacher will demonstrate the procedures of *Ottradam, Vedhu, and Suttigai* using anatomical models and simulated pediatric cases. Students will observe the influence of heat on muscle relaxation, nerve sensitivity, and circulation. Special attention will be given to safety protocols, heat tolerance, and contraindications in pediatric populations.

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will practice *Ottradam and Vedhu* techniques on simulation models, ensuring correct temperature control, placement, and application timing. Focus will be on respiratory areas and musculoskeletal regions presenting stiffness or congestion.

Step – 02 (Next 30 Minutes): Students will identify and mark *Suttigai* points and prepare case documentation for specific conditions such as muscular spasm, joint stiffness, or pediatric respiratory complaints. Justification for technique selection and anticipated outcomes will be included.

Assessment Methods (Final 30 Minutes): Teacher will assess students through direct observation using a checklist and DOPS, focusing on precision, safety, and patient-

centered technique adaptation. A practical viva will be conducted to evaluate the students' understanding of heat therapy effects and their clinical application within *Siddha* pediatric care.

Practical Training 11.3 : Application of *Nasiyam and Kalikkam* in Pediatric *Siddha* Therapy

Total duration of the activities 2 hours

This practical session focuses on the application of *Siddha* external drug therapies—*Nasiyam* (nasal instillation) and *Kalikkam* (eye drops)—in managing pediatric respiratory ailments, sinus congestion, and selected eye conditions. Students will learn safe preparation methods, accurate administration techniques, and how to tailor these therapies to suit the age and condition of pediatric patients.

Instructions to Students (First 30 Minutes): Teacher will demonstrate the preparation and administration of *Nasiyam and Kalikkam* using anatomical models and simulated pediatric scenarios. Students will observe drug selection, dosage measurement, delivery techniques, and necessary age-specific modifications. Emphasis will be placed on hygiene, safety precautions, and identifying therapy-specific contraindications.

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will practice the administration of *Nasiyam and Kalikkam* on mannequins or peer simulations. They will focus on proper head positioning, dosage control, and comfort measures for pediatric patients.

Step – 02 (Next 30 Minutes): Students will prepare sample formulations for both *therapies* using mock ingredients. They will document the preparation process, therapeutic indications, and explain dosage adaptations for various pediatric age groups.

Assessment Methods (Final 30 Minutes): Teacher will evaluate student performance using a checklist and DOPS for both preparation and administration accuracy. A practical viva will assess knowledge of therapeutic indications, age-based considerations, safety protocols, and *Siddha* justifications for using *Nasiyam* and *Kalikkam* in pediatric practice.

Practical Training 11.4 : Application of Local Blood Letting *(Attai Vidal, Keeral)* in Pediatrics

Total duration of the activities 2 hours

This practical session introduces students to local bloodletting techniques in *Siddha—Attai Vidal* (leech application) and *Keeral* (needle-based drainage)—used for treating pediatric conditions like localized inflammation, skin infections, and circulatory stagnation. Emphasis is placed on identifying suitable cases, ensuring aseptic protocols, and executing procedures with attention to pediatric safety.

Instructions to Students (First 30 Minutes): Teacher will demonstrate *Attai Vidal and Keeral* procedures on anatomical models or simulated patients. Students will observe leech handling, site preparation, controlled bleeding methods, and aftercare. Pediatric-specific safety measures, contraindications, and infection control protocols will be discussed.

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will simulate site selection, marking, and sterile technique for *Keeral* using training models. They will also handle leech models and demonstrate positioning and removal techniques for *Attai Vidal.*

Step – 02 (Next 30 Minutes): Students will prepare procedural case sheets detailing indication, site, method used, duration, and aftercare. They will justify the choice of technique based on pediatric pathology, with emphasis on circulatory and inflammatory conditions.
Assessment Methods (Final 30 Minutes): Teacher will evaluate technique and procedural safety using a checklist and DOPS. Practical viva will assess understanding of bloodletting principles, child-specific considerations, post-procedure care, and relevance of *Attai Vidal and Keeral* in *Siddha* pediatric therapeutics.

Practical Training 11.5 : Immobilization Techniques *(Kombu Kattal)* in Pediatric Orthopedic Care

Total duration of the activities 2 hours
This practical session trains students in *Kombu Kattal, the Siddha technique* of immobilization using splints, bandages, and compresses. It emphasizes joint stabilization, fracture support, and early deformity correction in pediatric patients. The session ensures learners understand anatomical considerations, safe application, and comfort in orthopedic management.
Instructions to Students (First 30 Minutes): Teacher will demonstrate the preparation and application of splints, bandages, and compresses on pediatric anatomical models. Students will observe techniques for stabilizing joints, aligning fractures, and protecting injured limbs. Safety guidelines, pediatric orthopedic principles, and material selection will be explained.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will practice applying splints and bandages to simulated limb fractures and joint deformities. Emphasis will be on correct positioning, pressure control, and stability maintenance for growing bones.
Step – 02 (Next 30 Minutes): Students will create case templates detailing fracture type, immobilization technique used, and aftercare instructions. They will demonstrate adjustments for pediatric anatomical differences and document comfort and safety considerations.
Assessment Methods (Final 30 Minutes): Teacher will use a checklist and DOPS to assess splinting accuracy, technique safety, and anatomical appropriateness. Practical performance will test understanding of immobilization goals, materials used, *Siddha* rationale for *Kombu Kattal,* and pediatric orthopedic care principles.

Practical Training 11.6 : *Siddha External Therapies* for Kyphosis and Scoliosis in Pediatrics

Total duration of the activities 2 hours
This practical session introduces *Siddha* external treatment protocols for managing pediatric spinal deformities like Kyphosis and Scoliosis. Students will apply techniques aimed at improving posture, correcting skeletal misalignments, and relieving musculoskeletal pressure. The therapies include massage-based approaches, supportive strapping, and pressure point modulation to manage spinal curvature effectively and safely in children.
Instructions to Students (First 30 Minutes): Teacher will demonstrate therapeutic approaches for scoliosis and kyphosis using anatomical models and clinical simulation. Posture evaluation, spine curvature identification, therapeutic positioning, and massage strokes will be explained. Safety considerations and contraindications for pediatric skeletal growth will be discussed.
Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will practice *Siddha* massage strokes and pressure relief techniques on models simulating kyphotic and scoliotic curvatures. They will use posture alignment charts to guide therapy direction.
Step – 02 (Next 30 Minutes): Students will simulate application of supportive strapping or postural aids and prepare care sheets detailing therapeutic goals, method used, and adjustments based on pediatric age and severity of deformity.
Assessment Methods (Final 30 Minutes): Teacher will assess clinical skill and precision using checklists and DOPS. Practical performance will evaluate students on anatomical reasoning, therapeutic justification, safety protocols, and *Siddha principles* for spinal deformity management in pediatric care.

Practical Training 11.7 : *Siddha External Therapy* for Pediatric *Valippu* (Seizure Disorders)

Total duration of the activities 2 Hours
This practical session trains students in *Siddha external therapies* for the management of *Valippu* (pediatric seizures/epilepsy). The focus will be on activating *Varmam* points for nervous system modulation, applying herbal formulations externally for neuroprotection, and reducing seizure frequency. Emphasis is placed on recognizing early symptoms, ensuring child safety, and applying therapeutic techniques that support brain function and calm neurological overactivity.
Instructions to Students (First 30 Minutes): Teacher will demonstrate *Varmam* points relevant to seizure modulation on anatomical models/children, followed by the preparation and application of herbal *external therapies* for calming neural activity. Students will observe techniques for safe pressure application, identify areas to avoid, and review contraindications and seizure emergency protocols in children.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will practice locating and stimulating *Varmam* points associated with seizure control using models or peers under supervision. They will also simulate application of calming herbal pastes to the forehead, scalp, and spine regions.
Step – 02 (Next 30 Minutes): Students will prepare clinical notes describing seizure symptoms, selected *Varmam* points, herbal therapies used, and safety considerations. They will document rationale for therapy and outline home care recommendations for pediatric seizure management.
Assessment Methods (Final 30 Minutes): Teacher will assess procedural skills using a structured checklist and DOPS, evaluating *Varmam* precision, herbal application technique, and overall safety. A practical viva will be conducted to test understanding of *Siddha* approaches to *Valippu*, neurotherapeutic logic, and ability to customize *external therapies* for pediatric seizure disorders.

Practical Training 11.8 : *Siddha External Therapy* for Pediatric Colic and Abdominal Pain

Total duration of the activities 2 hours
This practical session focuses on *Siddha* external therapies for managing pediatric colic and abdominal discomfort. Students will learn safe, non-invasive techniques such as gentle abdominal *Thokkanam* (massage), application of warm herbal compresses, and stimulation of relevant *Varmam points* to relieve gas, enhance digestion, and soothe abdominal pain in infants and children.
Instructions to Students (First 30 Minutes): Teacher will demonstrate *Thokkanam* techniques and abdominal compress application using anatomical models and simulation dolls. Students will observe hand movements, pressure control, compress preparation, and indications for pediatric colic and flatulence. Age-specific adaptations and

contraindications will be emphasized.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will perform abdominal massage on models using circular and clockwise strokes, focusing on regions associated with colic. They will apply warm compresses prepared with simulated herbal packs for soothing relief.
Step – 02 (Next 30 Minutes): Students will prepare case records describing symptoms, techniques used, observed outcomes, and recommendations for continued home-based external care. They will identify suitable *Siddha* external formulations for digestive support.
Assessment Methods (Final 30 Minutes): Teacher will use a checklist and DOPS to assess technique accuracy, pressure control, and safety in massage and compress application. A practical viva will evaluate the student's understanding of pediatric digestive issues, *Siddha* therapeutic rationale, and modifications for age and symptom severity.

Practical Training 11.9 : *Siddha External Therapies* for Wound Healing and Abscesses in Pediatrics

Total duration of the activities 2 Hours
This practical session trains students in *Siddha* techniques for managing wounds *(Katti),* abscesses *(Pun),* and *Kazhalai* (suppurative inflammation) in pediatric patients. Focus will be on herbal cleansing methods, external application of *Katti* (bandages), infection prevention, and inflammation control. Students will integrate case-based learning to select appropriate *therapies,* simulate dressing techniques, and assess healing indicators.
Instructions to Students (First 30 Minutes): Teacher will present pediatric wound and abscess scenarios using clinical models or images/children. Demonstration will include preparation of herbal *Katti, Kazhalai* washing techniques, and wound dressing protocols. Emphasis will be on aseptic handling, child-friendly procedures, and pain reduction strategies.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will simulate the preparation and application of *Katti* for wounds and Pun for abscesses using anatomical models. They will demonstrate *Kazhalai* cleansing using mock herbal decoctions for infected areas.
Step – 02 (Next 30 Minutes): Students will analyze a case scenario and draft a pediatric wound management plan, selecting appropriate *Siddha* techniques. They will document the treatment rationale, materials used, and safety considerations.
Assessment Methods (Final 30 Minutes): Teacher will evaluate procedural accuracy, herbal preparation, and dressing techniques using a checklist and DOPS. A practical viva will assess students' understanding of *Siddha* principles in wound care, identification of healing stages, and pediatric safety in external therapy applications.

Practical Training 11.10 : *Siddha External* Therapies for Pediatric Dermatological Conditions

Total duration of the activities 2 hours
This practical session introduces students to *Siddha external* therapeutic applications for pediatric dermatological conditions such as eczema, psoriasis, and related inflammatory disorders. Techniques include *Poochu* (topical herbal paste application), oil massage, and skin-soothing compresses. Focus will be on anti-inflammatory effect, skin regeneration, and dermal safety in children.

Instructions to Students (First 30 Minutes):Teacher will demonstrate preparation and application of *Siddha* herbal pastes *(Poochu),* medicated oils, and relevant compresses for skin lesions using anatomical models/ simulation/children. Students will observe area-specific application, absorption time, contraindicated zones, and age-related precautions for pediatric skin care.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will prepare herbal pastes or medicated oils using mock formulations and apply them on simulated skin models representing pediatric eczema and psoriasis. Focus will be on thickness, spreadability, and site protection.
Step – 02 (Next 30 Minutes): Students will record observations including condition type, lesion characteristics, herbal combinations used, and therapeutic rationale. They will also simulate oil massage techniques that promote circulation and skin healing.
Assessment Methods (Final 30 Minutes): Teacher will assess the students' technique using a checklist and DOPS, evaluating proper application, hygiene, and therapeutic accuracy. Practical viva will focus on choice of herbal agents, understanding of pediatric skin sensitivity, *Siddha* rationale, and expected outcomes in inflammatory skin conditions.

Experiential learning Activity

Experiential-Learning 11.1 : Pediatric *Siddha Thokkanam* Techniques for Musculoskeletal and Neuromuscular Disorders

Total Duration of the Activities : 4 Hours
This 4-hour experiential learning session immerses students in *Siddha Thokkanam* therapy, emphasizing pediatric applications for musculoskeletal and neuromuscular conditions. The session begins with demonstrations of appropriate massage techniques tailored for children, including rhythmic strokes, pressure modulation, and oil selection. Students will practice on peers or models, guided to adjust pressure and duration based on pediatric needs. The session integrates theoretical understanding with hands-on performance and reflection on safety and therapeutic outcomes.
Instructions to Students (First 20 Minutes): Teacher will introduce the objectives and principles of pediatric *Thokkanam,* explaining the importance of therapeutic touch, pressure adjustment, and oil application. A live demonstration will follow, showing massage techniques for common conditions such as muscle stiffness, motor delays, and postural imbalances. Students will be divided into practice groups and provided with simulation materials.
Students' Activities (Next 200 Minutes)
Step – 01 (70 Minutes): Students will practice *Thokkanam* techniques on anatomical models or peers under supervision. They will learn to locate relevant regions, apply gentle and rhythmic strokes, and ensure child-specific pressure is used. Each student will document the techniques used, including oil type, pressure method, duration, and therapeutic intent.
Step – 02 (70 Minutes): Students will receive short case scenarios (e.g., child with spasticity, motor delay, or postural weakness). Each group will demonstrate condition-specific *Thokkanam* application and explain the rationale behind chosen techniques. Discussions will include expected outcomes and child comfort measures.
Step – 03 (60 Minutes): Students will engage in reflective discussions on their learning experience. Each student will submit a worksheet summarizing indications, contraindications, and observations. Peer groups will discuss how *Thokkanam* supports long-term pediatric care and enhances quality of life.
Assessment (Final 20 Minutes): Teacher will evaluate students using DOPS and Practical Performance checklists focusing on skill execution, safety, and therapeutic

appropriateness. Peer Assessment will measure teamwork, accuracy, and professionalism during paired practice. Feedback will be provided in the form of a Trainer's Report, noting individual progress and group performance.

Experiential-Learning 11.2 : Observation of Pediatric *Siddha External Therapies – Ottradam and Vedhu*

Total Duration of the Activities 3 Hours

Students will observe real-time Siddha external therapy sessions in pediatric settings, focusing on *Ottradam* (fomentation) and *Vedhu* (steam therapy). They will learn how these treatments are adapted for children, including changes in technique, duration, and materials to ensure comfort, safety, and efficacy. Observations will include therapist assessment methods, therapist-child-caregiver dynamics, and the physiological rationale of using temperature-based therapies for conditions involving muscle spasms, inflammation, and stiffness.

Instructions to Students (First 30 Minutes): Teacher will orient students to the clinical setting and introduce *Ottradam and Vedhu* in pediatric contexts. Students will be instructed to observe respectfully, record modifications in therapy protocols for children, and pay attention to therapist-child-caregiver interaction, communication style, and emotional responses during therapy.

Students' Activities (Next 120 Minutes)

Step – 01 (60 Minutes): Students will observe and document the types of *therapies* administered, including preparation, materials used (e.g., herbal packs, steam equipment), technique variations, and adjustments for age, condition, and tolerance level of the child. Notes will also include therapist behavior, child's response, and caregiver involvement.

Step – 02 (60 Minutes): Students will engage in small group discussions to analyze the observed *therapies*, linking traditional knowledge with patient-centered care. Each student will prepare a reflective report summarizing key observations, relevance of heat-based therapies in pediatrics, and suggestions for enhancing therapeutic delivery in children.

Assessment (Final 30 Minutes) Teacher will assess performance using Mini-CEX for observation skills and Practical Performance for reflective synthesis. Clinical Work Sampling will include submitted observation notes, evaluating accuracy, clarity, and depth. Feedback will be provided on the student's understanding of personalized *Siddha therapy* in pediatrics.

Experiential-Learning 11.3 : Pediatric *Siddha* Orthopedic Immobilization Techniques – *Kombu Kattal, Kattu, Patru*

Total Duration of the Activities 4 Hours

This experiential learning session introduces students to essential *Siddha* orthopedic immobilization techniques for pediatric care. The workshop will cover *Kombu Kattal* (splinting) for fractures, *Kattu* (bandaging) for joint support, and *Patru* (herbal compresses) for swelling or pain relief. Students will observe demonstrations of each method and then practice under supervision using anatomical models or peers. The focus is on ensuring safe, child-specific adaptations in pressure, material choice, and immobilization duration to enhance recovery and minimize discomfort. Reflection and peer review will reinforce accuracy and patient-centered application.

Instructions to Students (First 30 Minutes) Teacher will demonstrate *Kombu Kattal, Kattu, and Patru* techniques with attention to pediatric considerations. Students will observe adjustments in splint length, bandaging pressure, and compress temperature for children. Key safety elements such as joint protection, circulation monitoring, and

caregiver communication will be explained. Students will prepare to practice each technique step-by-step during the hands-on session.
Students' Activities (Next 180 Minutes)
Step – 01 (60 Minutes): Students will practice *Kombu Kattal* on pediatric models, aligning splints correctly, securing them using cloth strips or bandages, and verifying immobilization without compromising circulation. Students will document each stage of the procedure.
Step – 02 (60 Minutes): Students will apply *Kattu and Patru* techniques using safe and gentle tension. They will learn how to wrap joints securely, apply herbal compresses appropriately, and adjust therapy for different conditions like sprains or muscular swelling in pediatric patients.
Step – 03 (60 Minutes): Students will prepare step-by-step procedural checklists for each technique, highlighting *Siddha principles*, safety checks, and pediatric-specific modifications. A peer-feedback discussion will follow, where students will present observations and reflect on how pediatric immobilization differs from adult care.
Assessment (Final 30 Minutes): Teacher will assess student performance using DOPS, evaluating accuracy in splinting, bandaging, and compress application. Practical Performance will assess technique, safety adherence, and patient comfort. A Practical Role Play will simulate caregiver interaction and education, emphasizing empathy and clear communication in pediatric *Siddha* orthopedic care.

Experiential-Learning 11.4 : Role-Play and Practical Demonstration of *Podithimurthal* for Pediatric Care

Total Duration of the Activities 3 Hours
This structured experiential learning activity focuses on *Podithimurthal* (herbal powder massage) tailored for pediatric *Siddha practice*. Students will begin by observing a demonstration emphasizing gentle pressure, circular and linear motions, and patient-specific adjustments. The importance of therapeutic intent, communication, and caregiver coordination will be highlighted. Following this, students will simulate *Podithimurthal* on peers or models, practicing adjustments based on the age, condition, and comfort level of the child. The role-play component will reinforce empathetic communication and procedural explanation in a family-centered care setting.
Instructions to Students (First 30 Minutes); Teacher will demonstrate *Podithimurthal* techniques adapted for children, including areas of application, movement rhythm, and herbal powder selection. Students must observe the body posture, caregiver reassurance, and safety protocols. During role-play, students will simulate patient and caregiver interaction, explaining the procedure using child-friendly language while emphasizing cooperation, trust, and comfort.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice *Podithimurthal* techniques on simulation models or peers. Emphasis will be placed on pressure modulation, proper hand movement, duration of application, and awareness of pediatric anatomical sensitivities. Techniques for calming and engaging the child during therapy will also be practiced.
Step – 02 (60 Minutes): Students will document each *Podithimurthal* technique practiced, noting herbal formulation used, therapeutic purpose, modifications for age/condition, and observed outcomes. Peer feedback sessions will help refine skills. Students will then reflect on benefits such as circulation improvement, relief from stiffness, and neuromuscular support, along with lessons learned about pediatric comfort and cooperation.
Assessment (Final 30 Minutes): Teacher will assess practical application using DOPS, focusing on safety, technique accuracy, and communication clarity. A Practical Role Play will evaluate caregiver interaction and consent handling. Practical Performance will assess student ability to adjust therapy appropriately and maintain professional conduct during pediatric procedures.

Experiential-Learning 11.5 : Observation and Ethical Reflection on *Attai Vidal* (Leech Therapy) in Pediatric Care

Total Duration of the Activities 3 Hours

This experiential learning session introduces students to *Attai Vidal* (leech therapy), a traditional *Siddha external treatment* method used for inflammatory skin conditions. Through a live demonstration in a clinical setting, students will observe the selection, application, and removal of leeches, noting pediatric-specific safety considerations and contraindications. The session emphasizes clinical appropriateness, ethical awareness, and patient-centered care when applying bloodletting techniques to children. Students will analyze case examples and prepare a report reflecting on the therapeutic value and limitations of this intervention.

Instructions to Students (First 30 Minutes): Teacher will demonstrate *Attai Vidal* procedures, including preparation of the site, safe application of leeches, and post-procedure care on simulated patients. Students should observe how child comfort is maintained, hygiene protocols are followed, and informed consent is obtained from caregivers. Discuss indications such as pediatric inflammatory swellings or chronic skin issues, and recognize when bloodletting should be avoided.

Students' Activities (Next 120 Minutes)

Step – 01 (60 Minutes): Students will review case studies of pediatric conditions managed through *Attai Vidal*. In small groups, discuss the clinical decision-making, therapeutic objectives, and outcomes. Evaluate the appropriateness of therapy using *Siddha principles* and modern ethical standards.

Step – 02 (60 Minutes): Prepare a presentation based on the case analysis, discussing benefits, risks, and ethical considerations in pediatric applications. Each student will then submit an individual reflective report summarizing the observed procedure, therapeutic rationale, child-specific modifications, and challenges in implementing bloodletting safely.

Assessment (Final 30 Minutes): Teacher will assess presentations for clinical reasoning and ethical insight. A Case-Based Assessment rubric will evaluate group discussions and participation. Individual report submissions will be reviewed for critical analysis, understanding of pediatric safety, and integration of *Siddha principles* with ethical care delivery.

Experiential-Learning 11.6 : Clinical Observation and Application of *Suttigai* Therapy in Pediatric Practice

Total Duration of the Activities 3 Hours

This experiential session introduces students to *Suttigai* Therapy (cauterization), traditionally used in *Siddha* medicine for conditions such as venomous bites, localized swellings, skin infections, and certain musculoskeletal or nervous conditions in pediatric care. Students will observe live or simulated demonstrations of *Suttigai* preparation and application. Emphasis is placed on hygiene, temperature control, safety precautions, site selection, and pediatric-specific adaptations. Students will practice *Suttigai* on non-patient models and reflect on its role in traditional healing and symptom relief.

Instructions to Students (First 30 Minutes) Teacher will explain the clinical rationale, site selection, and safety considerations in pediatric *Suttigai therapy*. Observe the demonstration of *Suttigai* tools, heating methods, pain control techniques, and cauterization procedures. Understand the indications, contraindications, and ethical considerations, especially in children. Prepare for supervised hands-on practice using models.

Students' Activities (Next 120 Minutes)

Step – 01 (60 Minutes): Students will practice identifying anatomical landmarks for *Suttigai* point selection. Perform simulated *Suttigai* procedures on models using heated rods or safe substitutes under supervision, following correct sterilization and application techniques. Record observations, tools used, and care protocols.

Step – 02 (60 Minutes): Engage in group discussion and peer feedback, evaluating the procedure's efficacy, cultural acceptance, and role in integrative pediatric care.

Prepare a brief practical report on case-based application of *Suttigai* for pediatric indications, including benefits, risks, and supportive measures such as post-procedure care and caregiver communication.
Assessment (Final 30 Minutes) Teacher will conduct DOPS to assess procedural accuracy and safety adherence. A Mini-CEX will evaluate communication, justification of technique, and understanding of *Suttigai* indications. Final Practical Performance will be reviewed based on students' execution on models and documentation clarity.

Experiential-Learning 11.7 : Therapeutic Problem Solving with *Pugai* and *Thuvalai* in Pediatric Care

Total Duration of the Activities 3 Hours
This experiential session focuses on *Pugai* (fumigation therapy using medicated herbs) and *Thuvalai* (therapeutic spray of herbal decoctions) as applied in *Siddha* pediatrics for skin disorders, respiratory issues, wound care, and microbial control. Students will review clinical scenarios, observe therapy setup and safety protocols, and then work in teams to develop treatment plans. Hands-on practice includes mock preparation and application of both *therapies* using models. The goal is to integrate clinical reasoning, procedural readiness, and patient comfort into therapeutic application.
Instructions to Students (First 30 Minutes)
Teacher will introduce the clinical indications, materials used, and procedural steps for *Pugai and Thuvalai.* Students will be grouped and assigned pediatric case scenarios. Observe live demonstration on preparation, dosage control, safety, and child positioning. Prepare to apply these therapies in simulation.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will perform problem-based analysis of assigned cases. Identify which therapy *(Pugai, Thuvalai)* is appropriate, justify its selection, and outline expected outcomes. Prepare herbal combinations and simulate therapy setup using models.
Step – 02 (60 Minutes):Implement *Pugai and Thuvalai* applications on simulation models. Follow hygiene and safety protocols, including patient comfort measures. Teams will present management strategies and expected benefits, integrating traditional logic with modern understanding. Submit documentation of materials, steps, precautions, and therapeutic rationale.
Assessment (Final 30 Minutes): Teacher will use Mini-CEX to evaluate individual performance during therapy setup and application. Patient Management Problems (PMP) will assess critical thinking in selecting therapy and predicting outcomes. Practical Performance will be reviewed using rubrics assessing accuracy, safety, and patient-centered delivery.

Experiential-Learning 11.8 : *Siddha* External Therapies for Ear, Nose, and Throat (ENT) Conditions in Pediatrics

Total Duration of the Activities 3 Hours
This experiential learning session focuses on the application of *Siddha external therapies* such as *Thylam* application, steam inhalation *(Vedhu),* nasal instillation *(Nasiyam),* and ear oil therapy for pediatric Ear, Nose, and Throat (ENT) conditions like otitis media, sinusitis, rhinitis, and sore throat. Students will observe live demonstrations, learn proper techniques, and engage in case-based hands-on practice to apply therapies safely and effectively.
Instructions to Students (First 30 Minutes): Teacher will introduce common Ear, Nose, and Throat (ENT) disorders in children and their *Siddha* management. Students will observe demonstrations of *therapies* such as *Nasiyam, Thylam* application around the ear and nose, and *Pugai*. Step-by-step instructions for preparation, application,

duration, and pediatric modifications will be provided. Emphasis will be placed on patient comfort, hygiene, and therapeutic rationale.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice external therapy procedures on models or peers under supervision. They will apply *Thylam* for ear/nose pain, simulate *Nasiyam* using dropper models, and set up *Vedhu* for nasal congestion relief. Each procedure will follow safety, hygiene, and dosage principles.
Step – 02 (60 Minutes): Students will be given case scenarios (e.g., child with chronic sinusitis, acute otitis media) and asked to solve them using appropriate *Siddha therapies.* Each student will explain their *therapy* choice, demonstrate application, and describe outcome expectations. Teams will present their strategies and reflect on challenges.
Assessment (Final 30 Minutes): Teacher will assess procedural competence using DOPS, focusing on accuracy, safety, and pediatric-specific modifications. Practical Problem Solving rubrics will evaluate decision-making in selecting *therapies*. Practical Performance will be reviewed for fluency, hygiene adherence, and patient-centered delivery.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - This 25-mark practical assessment evaluates student proficiency in applying *Siddha*-based external therapies *(Pura Maruthuvam)* in pediatric care. The focus is on safe execution of techniques like *Thokkanam, Ottradam, Varmam,* and topical drug application. Emphasis is placed on age-appropriate dosage, anatomical understanding, thermal regulation, and external manipulation for therapeutic benefit. Instructions to Students: Students will perform selected *Siddha* external therapies on pediatric simulation models under observation. Ensure proper technique, dosage, and positioning based on child age and condition. Demonstrate handling of tools (herbal paste, bandage, steam compress). Follow hygiene and safety protocols. Use only approved methods. Verbal explanation of each step is mandatory. Instructions to Teachers: Set up stations simulating pediatric cases requiring *Pura Maruthuvam.* Evaluate students on technique precision, age-appropriate modifications, anatomical understanding, safety compliance, and communication. Include components such as *Thokkanam, Ottradam, Kattu, or Nasiyam*. Use a structured checklist with skill, safety, procedural steps, and patient explanation. Emphasize practical accuracy and clinical appropriateness. Mark Distribution: The 25 marks are divided into four components. Technique Performance and Safety (7 marks) evaluates handling, hygiene, and pediatric-specific application. Clinical Relevance and Procedural Accuracy (6 marks) assesses alignment with diagnosis. Dosage and Duration Customization (6 marks) focuses on patient age and condition. Communication and Explanation Skills (6 marks) rate clarity and instructional confidence. & Section – B. This 25-mark OSPE assesses practical skills in applying *Siddha* external therapies for common pediatric neurological, musculoskeletal, gastrointestinal, dermatological, ENT, ophthalmic, and wound-related conditions. Students will demonstrate *Thokkanam, Podithimurthal, Varmam, Nasiyam, Poochu, and Katti* across structured stations using models or simulated patients. Assessment emphasizes technique, condition specificity, and	4

patient communication.
Instructions to Students: Students will rotate through OSPE stations involving pediatric conditions such as cerebral palsy, scoliosis, seizures, ENT issues, and wound care. Demonstrate *Siddha* therapies using proper pressure, duration, and anatomical accuracy. Clearly explain the procedure to caregivers when required. Maintain hygiene, follow safety guidelines, and complete each task within the time limit.
Instructions to Teachers: Design OSPE stations simulating pediatric cases where *Siddha* external therapies are indicated. Use anatomical models, case vignettes, or role-play scenarios. Evaluate students' ability to perform procedures (e.g., *Thokkanam* for spasticity, *Nasiyam* for ENT issues), explain caregiver instructions, and ensure treatment is age-appropriate and therapeutically justified. Use structured checklists for scoring.
Mark Distribution: Marks are distributed across four Objective Structured Practical Examination (OSPE) stations. Station 1 assesses condition identification and appropriate *Siddha therapy* selection (7 marks). Station 2 evaluates demonstration of *external therapy* techniques (6 marks). Station 3 focuses on patient or caregiver communication (6 marks). Station 4 reviews safety protocols and monitoring plans (6 marks).
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

Module 12 : ?????????????? ?????????? ?????????? Kuzhanthaigalukkaana Pura Maruthuva Muraigal (Practical Applications and Integration of External Therapies Pediatrics)

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

Describe Siddha external therapies for pediatric neurodevelopmental disorders.
Apply integrative techniques for managing pediatric ENT and respiratory conditions.
Demonstrate *Thokkanam, Varmam, and Nasiyam* for pediatric clinical care.
Evaluate Siddha-based pain and wound management strategies in children.
Analyze clinical outcomes from Siddha external therapy case reports.
Review literature and trials supporting Siddha external pediatric therapies.

M 12 Unit 1 ????????? ?????????????? ?????????? ??????? - Arivusaar Kuraipadukalukkana Puramaruthuva Muraigal -Applications of

External Therapies for Intellectual Disabilities

12.1.1 Mental Retardation – Intellectual disability, cognitive delay, *Varmam* therapy, herbal applications, mental clarity enhancement, non-invasive brain function support.
12.1.2 Autism Spectrum Disorders (ASD) – Social behavior challenges, sensory processing issues, *Thappalam* massage, cognitive integration, emotional modulation, pediatric autism care.
12.1.3 Attention Deficit Hyperactivity Disorder (ADHD) – Hyperactivity, attention deficits, impulsivity control, *Varmam* stimulation, massage techniques, energy balance restoration.
12.1.4 Behavioral Disorders – Aggression, social anxiety, emotional dysregulation, herbal poultices, pressure point therapy, mental well-being promotion.
12.1.5 Developmental Delay – Milestone delays, motor dysfunction, *Thokkanam* massage, *Varmam* activation, skill acquisition improvement.

References: 5,53,55,56,114,124

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Analyze *Varmam, Thappalam, Thokkanam* roles in cognitive-behavioral support for autism, Attention-Deficit/Hyperactivity Disorder (ADHD), developmental delays.	1	Lecture	CAN	Know	L&PPT ,D,D-M
CO1,CO2,CO3	Apply *Siddha therapies* to improve social behavior, sensory integration, and emotional stability in developmental disorders.	1	Lecture	CAP	Know	TUT,D-M ,DIS,L_V C
CO4,CO6,CO7	Appraise research on *Siddha therapy* for mental retardation.	2	Practical Training 12.1	CE	Shows-how	DIS,JC,P AL
CO1,CO2,CO3	Perform *Thappalam therapy* for sensory and behavioral regulation in children.	2	Practical Training 12.2	PSY-MEC	Shows-how	DIS,PAL, D
CO3,CO5,CO6	Demonstrate *external therapies* and value sensory care in neurodiverse children	4	Experiential-Learning 12. 1	AFT-VAL	Does	SIM,W,D ,PAL
CO5,CO6,CO7	Apply *external therapies* for developmental and cognitive enhancement in children	3	Experiential-Learning 12.	PSY-GUD	Does	PAL,SIM, W,D-

			2			BED

M 12 Unit 2 ???????????? ????? ??????? ???? ??????????? ??????? - Orunginaintha Siddha matrum Naveena Puramaruthuva Mauraigal -Integrating Siddha Pura Maruthuvam with Modern Pediatrics

12.2.1 Splinting and Immobilization *(Kattu, Kombu Kattal)* – Pediatric fractures, joint stabilization, musculoskeletal deformity correction, *Kattu* application, *Kombu Kattal* integration, orthopedic co-management.
12.2.2 *Pugai, Vedhu*, and Nebulization – Pediatric asthma, bronchitis, cough management, *Siddha* fumigation, steam therapy, nebulization synergy, respiratory function support.
12.2.3 *Nasiyam, Thuvalai, Kalikkam* in ENT Care – Nasal congestion, ear pain, eye irritation, *Siddha* nasal and ear drops, *Kalikkam* therapy, ENT symptom relief.
12.2.4 Wound Management *(Poochu, Kattu)* – Pediatric wound healing, abscess care, herbal paste application, medicated bandages, infection control, integrative wound management.
12.2.5 Pain Management *(Ottradam, Thokkanam, Varmam)* – Heat therapy, massage techniques, pressure point activation, modern analgesics integration, pediatric pain relief, recovery enhancement.

References: 94,114,124,129

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Evaluate integrated Siddha-modern therapies for pediatric fractures, respiratory, and Ear, Nose, and Throat (ENT) conditions using *Kattu*, *Nasiyam*, etc.	1	Lecture	CC	Know	DIS,PER, L&GD
CO3,CO4,CO6	Demonstrate splinting techniques for pediatric fracture and joint stabilization.	2	Practical Training 12.3	PSY-MEC	Shows-how	RLE,SIM, PL,W
CO1,CO2,CO3	Analyze *Poochu, Kattu, Ottradam* effectiveness in pediatric wound care, pain relief, and healing integration.	1	Lecture	CAN	Know	L&GD,DIS,L&PPT
CO1,CO2,CO3	Explain combining *Siddha therapies* with modern treatments for pediatric pain, respiratory, and musculoskeletal conditions.	1	Lecture	CS	Know	DIS,CBL
CO3,CO4,CO6	Apply *Siddha external therapies* for pediatric Ear, Nose, and Throat (ENT) symptoms using simulation.	2	Practical Training 12.4	PSY-GUD	Shows-how	CBL,RP, ML

CO3,CO4,CO6	Evaluate *Siddha therapies* and modern techniques in pediatric respiratory care.	2	Practical Training 12.5	CE	Shows-how	PER,JC,IBL,SY
CO2,CO3,CO5	Apply and compare *Siddha* and modern therapies for pediatric care	3	Experiential-Learning 12.3	PSY-MEC	Does	CBL,W,SIM,D-M
CO3,CO5,CO6	Perform *external therapies* for pediatric pain using *Siddha* methods	3	Experiential-Learning 12.4	PSY-MEC	Does	PSM,W,PL,PBL,D
CO3,CO5,CO6	Apply herbal paste and bandage for pediatric wound management	2	Experiential-Learning 12.5	PSY-GUD	Does	D,BL,W,PAL

M 12 Unit 3 ?????????????? ?????????? ???????????? - Kuzhanthaikalukkana Puramaruthuva Seyalmuraigal -Practical Applications of Pediatric Pura Maruthuvam

12.3.1 Heat Application *(Ottradam, Vedhu, Suttigai)* – Hot compress technique, steam application, cauterization methods, muscle relaxation, joint pain relief, pediatric thermal therapy.
12.3.2 Immobilization Techniques *(Kattu, Patru)* – Splinting procedures, medicated bandaging, pediatric fracture management, sprain stabilization, musculoskeletal support, healing facilitation.
12.3.3 Local Manipulation *(Varmam, Thokkanam)* – Pressure point stimulation, therapeutic massage, neurological improvement, musculoskeletal mobility, pediatric functional restoration.
12.3.4 Drug Applications *(Nasiyam, Kalikkam)* – External drug delivery, nasal drop instillation, herbal eye treatment, respiratory support, application protocols.
12.3.5 Blood Letting *(Attai Vidal, Keeral)* – Leech therapy, fine-needle drainage, inflammation control, infection reduction, pediatric bloodletting safety, procedural demonstration.

References: 114,124,129

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

CO1,CO2,CO3	Explain heat therapies and immobilization techniques for pediatric musculoskeletal issues like pain, fractures, sprains.	1	Lecture	CS	Knows-how	L&GD,DIS,CBL
CO3,CO4,CO6	Evaluate mechanisms and therapeutic effects of pediatric heat applications.	2	Practical Training 12.6	CE	Shows-how	JC,SY,IBL,PER
CO1,CO2,CO3	Analyze integrating *Varmam, Thokkanam, Nasiyam, Kalikkam,* bloodletting for pediatric neuro-respiratory-inflammatory disorder management.	1	Lecture	CAN	Knows-how	JC,L&GD,LS
CO1,CO2,CO3	Evaluate local manipulations, drug use, and bloodletting for pediatric healing, mobility, and integrated care.	1	Lecture	CE	Knows-how	JC,DIS,L&GD
CO3,CO4,CO6	Evaluate advances and scientific evidence in pediatric bloodletting therapies.	2	Practical Training 12.7	CE	Shows-how	JC,PL,SY,IBL
CO3,CO5,CO6	Apply *Siddha principles* to document pediatric skin and respiratory therapies	4	Experiential-Learning 12.6	CAP	Does	CBL,PL

M 12 Unit 4 ?????????????? ?????????????????? ???????? ??????? ????????? ??????? ?????????? - Kuzhanthaikalukkana Puramaruthuvathil Aaivugal matrum Saandrugal Saarntha Nadaimuraigal -Case Studies and Evidence-Based Practices in Pura Maruthuvam

12.4.1 Case Reports on *Siddha* External Therapies in Neurological Disorders – Cerebral palsy, seizures, *Varmam* application, *Thokkanam* outcomes, pediatric neurology management, therapeutic case analysis.
12.4.2 Case Series on Skin and Respiratory Conditions – Eczema, asthma, sinusitis, *Poochu* effectiveness, *Pugai* therapy, pediatric multi-case documentation.
12.4.3 Pilot Studies on Pediatric *Siddha* Therapies – Developmental delay, immune deficiency, Siddha external therapy validation, preliminary evidence generation.
12.4.4 Literature Review on *Siddha Pura Maruthuvam* – Classical references, modern publications, systemic and localized condition management, Siddha textual analysis.
12.4.5 Clinical Trials on *Siddha External Therapies* in Pediatrics – Pediatric clinical endpoints, trial outcomes, evidence-based practice, large-scale therapeutic evaluation.

References: 4,28,34,111

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

CO3,CO4,CO6	Analyze case reports on *Siddha* therapies for pediatric neurological disorders.	2	Practical Training 12.8	CAN	Shows-how	CBL,BL, DIS
CO3,CO5,CO6	Comprehend and document pediatric *Siddha external* therapeutic practices	3	Experiential-Learning 12.7	CC	Does	LS,CBL,SIM,PL
CO1,CO2,CO3	Analyze case studies on *Siddha external therapies* for pediatric neuro, skin, and respiratory conditions.	1	Lecture	CAN	Knows-how	DIS,BL
CO1,CO2,CO3	Evaluate *Siddha external therapy* outcomes in pediatrics using reviews and trials for cerebral palsy, eczema, asthma.	1	Lecture	CE	Knows-how	BL,DIS
CO4,CO6,CO7	Interpret pediatric clinical trial data on *Siddha* external therapies.	2	Practical Training 12.9	CAN	Shows-how	IBL,JC
CO4,CO6,CO7	Evaluate research studies on *Siddha* pediatric therapies.	2	Practical Training 12.10	CE	Shows-how	PER,SY,JC
CO2,CO5,CO7	Analyze and evaluate *Siddha* case studies for pediatric therapy integration	4	Experiential-Learning 12.8	CAN	Shows-how	DIS,TBL, TPW,BS, Mnt

Practical Training Activity

Practical Training 12.1 : Critical Reading and Group Discussion on *Siddha External Therapies* for Mental Retardation

Total Duration of the Activity: 2 Hours

This practical session engages students in a journal club focused on critical reading of selected research papers on *Siddha external therapies* for managing mental retardation in pediatrics. Students will evaluate study design, methodology, *Siddha* interventions used *(e.g., oil massage, Varmam)*, outcomes, and ethical considerations. The goal is to improve evidence-based thinking and presentation skills in a collaborative setting.

Instructions to Students (First 20 Minutes): Teacher will distribute 1–2 relevant open-access research papers on *Siddha external therapy* for pediatric mental retardation. Students will be divided into groups and guided to review background, study objectives, *Siddha* methods used, results, and limitations. Each group will identify the core contributions and prepare for presentation.

Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): In groups, students will conduct a critical reading of the assigned paper using a structured appraisal checklist. Focus will be on identifying research gaps, methodological clarity, and therapeutic implications.
Step – 02 (Next 40 Minutes): Each group will present their analysis in 5–7 minutes, followed by open-floor discussion on strengths, weaknesses, and real-world relevance of the study in *Siddha* pediatric practice.
Assessment Methods (Final 20 Minutes): Teacher will conduct an open-book assessment with short critical thinking questions from the journal articles. A peer evaluation form and critical reading checklist will be used to assess participation, analysis depth, and clarity of presentation. Feedback will be provided to enhance scientific literacy and *Siddha* evidence integration.

Practical Training 12.2 : Application of *Thappalam* for Sensory Integration and Behavioral Support in Children

Total Duration of the Activity: 2 Hours
This practical session trains students in the *Siddha external therapy* technique *Thappalam*, a rhythmic massage used to promote relaxation, social engagement, and sensory integration in children with learning disabilities. Students will learn the Standard Operating Procedure (SOP), explore different types of *Thappalam,* interpret scientific correlations, and assess sensory responses. Critical reflection and peer discussion will help in understanding its evolving role in pediatric neurodevelopmental care.
Instructions to Students (First 30 Minutes): Teacher will demonstrate the *Thappalam* technique, including variations in pressure, rhythm, and target areas based on sensory profiles. Students will observe SOP adherence, types of *Thappalam*, and signs of sensory modulation during the massage. Discussion on scientific correlates (e.g., vagal stimulation, tactile input effects) and recent advances in practice will follow.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will practice applying *Thappalam* on training models, focusing on rhythm, intensity, and observing simulated sensory cues. They will tailor the approach as per observed responses and record sensory and behavioral observations.
Step – 02 (Next 30 Minutes): Students will engage in peer discussion to interpret responses and correlate with theoretical concepts. They will write a critical reflection report summarizing the therapeutic logic, observed changes, and potential scientific mechanisms behind *Thappalam's* benefits in learning-disabled children.
Assessment Methods (Final 30 Minutes): Teacher will assess procedural skill using a checklist and observational feedback. Reflective writing will be evaluated for depth of interpretation and alignment with evidence-based understanding. Peer evaluations will help assess critical engagement and personalized care planning through *Thappalam therapy*.

Practical Training 12.3 : Workshop on Splinting and Immobilization Techniques in Pediatric Orthopedic Care

Total Duration of the Activity: 2 Hours
This practical session is designed as a workshop to train students in splinting and immobilization techniques for pediatric patients with fractures, joint instability, or musculoskeletal deformities. Through simulation and hands-on exercises, students will learn to assess orthopedic needs, select appropriate materials, apply immobilization

devices, and co-manage care alongside orthopedic protocols. Emphasis is on safe practice, pediatric anatomy, and adapting methods to growth stages.
Instructions to Students (First 30 Minutes): Teacher will lead a workshop with demonstrations on types of splints (static, dynamic), bandaging methods, and immobilization for various pediatric injuries. Students will observe material selection, anatomical landmarks, pressure point avoidance, and alignment techniques for different age groups.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will practice splinting techniques on mannequins or peer volunteers. They will simulate the immobilization of upper limb fractures, ankle sprains, and postural deformity corrections under guided supervision.
Step – 02 (Next 30 Minutes): Students will engage in problem-solving tasks with mock clinical scenarios requiring immobilization planning. They will work in pairs to decide the correct technique, apply the splint, and justify their approach based on patient age, injury site, and comfort.
Assessment Methods (Final 30 Minutes): Teacher will evaluate students using a structured checklist focusing on splint accuracy, stability, and safety. A practical performance review will assess students' ability to apply techniques correctly under pressure. Problem-solving worksheets will test reasoning and adaptability in orthopedic co-management using *Siddha*-compatible approaches.

Practical Training 12.4 : *Siddha External Therapies* for Pediatric Ear, Nose, and Throat (ENT) Conditions: Clinical Simulation and Case-Based Practice

Total Duration of the Activity: 2 Hours
This practical session introduces *Siddha external* therapeutic approaches to common pediatric Ear, Nose, and Throat (ENT) symptoms such as nasal congestion, ear pain, and throat infections. Students will learn to identify Ear, Nose, and Throat (ENT) symptoms, select relevant therapies *(e.g., Nasiyam, Ottradam, Pugai, oil application),* and demonstrate management through role-play, clinical video analysis, and simulation. The session integrates digital learning tools and problem-solving through real-case samples.
Instructions to Students (First 30 Minutes): Teacher will present clinical video cases of Ear, Nose, and Throat (ENT) conditions in children (e.g., nasal block, otalgia, throat pain). Through mobile-based microlearning clips, students will observe symptom presentation, external therapy procedures *(e.g., Nasiyam* for nasal block, *Pugai* for congestion), and their outcomes. Role-play teams will be assigned for simulation.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will participate in role-play simulations, performing case-based Ear, Nose, and Throat (ENT) external treatments like *Nasiyam, Pugai, or local oil applications*. Each group will handle one case (nasal, ear, or throat issue) using a clinical script.
Step – 02 (Next 30 Minutes): Students will document Patient Management Problems (PMPs) by analyzing the simulated cases, identifying key symptoms, selecting *Siddha therapies*, justifying the intervention, and proposing a follow-up care plan.
Assessment Methods (Final 30 Minutes): Teacher will assess student performance using a simulation checklist during role-play. Clinical work sampling will evaluate their engagement in therapeutic application and decision-making. PMPs will be assessed for clinical logic, *Siddha* justification, and safe ENT symptom management in pediatric patients.

Practical Training 12.5 : Scientific Interpretation of *Pugai, Vedhu,* and Nebulization in Pediatric Respiratory Care

Total Duration of the Activity: 2 Hours

This session aims to critically interpret the use of *Pugai* (fumigation), *Vedhu* (steam therapy), and Nebulization for pediatric respiratory conditions such as asthma, bronchitis, and chronic cough. Students will compare *Siddha* and modern approaches, examine physiological mechanisms, and evaluate the synergistic potential in clinical care. Activities include journal club discussions, symposium presentations, debates, and inquiry-based exploration of respiratory function enhancement through *external therapies.*

Instructions to Students (First 30 Minutes): Teacher will assign peer-reviewed articles and excerpts on *Siddha external therapies (Pugai, Vedhu)* and modern nebulization. Students will form discussion groups for journal club reading, followed by a structured inquiry task: "How do heat, herbs, and vapors affect pediatric airway function?" Guidelines for debate and presentation will be shared.

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will engage in group discussion to analyze the assigned reading material. Each group will summarize scientific interpretations, safety, and observed outcomes in pediatric asthma and bronchitis management using *Siddha* and modern methods.

Step – 02 (Next 30 Minutes): Students will participate in a symposium-style presentation followed by a debate on the topic: "Can *Siddha* fumigation and steam therapy effectively complement modern nebulization in pediatric care?" Each group will defend or challenge the synergy based on available evidence.

Assessment Methods (Final 30 Minutes): Teacher will conduct a practical viva based on the readings and symposium discussion. A critical reading checklist will assess analytical depth and integration of *Siddha*-modern concepts. Group presentations will be evaluated for clarity, scientific reasoning, and application to pediatric respiratory care.

Practical Training 12.6 : Scientific Interpretation of *Ottradam, Vedhu, and Suttigai* in Pediatric Thermal Therapy

Total Duration of the Activity: 2 Hours

This session explores the scientific basis of *Siddha* thermal therapies—*Ottradam* (hot compress), *Vedhu* (steam therapy), and *Suttigai* (cauterization)—used in pediatric care for muscle relaxation, joint pain relief, and inflammation control. Through journal club discussions, inquiry-based tasks, and a symposium, students will critically interpret their physiological mechanisms, clinical applications, and integration potential in pediatric *Siddha practice*.

Instructions to Students (First 30 Minutes): Teacher will assign selected articles and classical excerpts on heat application therapies in *Siddha* and modern thermal physiology. Students will be grouped for journal club reading, followed by an inquiry task: "What is the mechanism of action behind heat application in pediatric musculoskeletal and inflammatory conditions?" Symposium roles and debate topics will be distributed.

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will conduct critical analysis of assigned readings and discuss the role of vasodilation, nerve stimulation, detoxification, and anti-inflammatory action in pediatric thermal therapy. Findings will be documented for group sharing.

Step – 02 (Next 30 Minutes): Each group will present in a mini symposium on one of the heat applications—*Ottradam, Vedhu, or Suttigai*—highlighting preparation, application methods, physiological rationale, and safety in pediatric use. This will be followed by a debate: "Should *Siddha* heat therapies be scientifically validated for wider pediatric application?"

Assessment Methods (Final 30 Minutes): Teacher will use a critical reading checklist to assess each group's comprehension of scientific principles. A practical viva will be conducted on mechanism interpretation and therapy justification. Group presentations will be evaluated for clarity, integration of traditional knowledge with scientific reasoning, and application relevance in pediatric care.

Practical Training 12.7 : Recent Advances in Bloodletting *(Attai Vidal, Keeral)* for Pediatric Inflammatory Conditions

Total Duration of the Activity: 2 Hours
This session explores *Attai Vidal* (leech therapy) and *Keeral* (fine-needle bloodletting) within a modern evidence-based framework for managing pediatric inflammation, skin infections, and circulation issues. Students will critically review recent studies, interpret mechanisms, evaluate safety in children, and debate the evolving clinical role of *Siddha* bloodletting in integrative care.
Instructions to Students (First 30 Minutes): Teacher will provide peer-reviewed articles, case reports, and review papers on *leech therapy* and micro-bloodletting techniques in both *Siddha* and modern contexts. Students will be divided into groups to perform critical reading and inquiry-based exploration on the following question: “What modern scientific evidence supports the clinical use of *Attai Vidal and Keeral* in pediatric patients?”
Students’ Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will participate in a journal club discussion, analyzing methodology, outcomes, and safety profiles in published case studies. They will summarize findings related to efficacy in inflammation control, infection reduction, and vascular regulation.
Step – 02 (Next 30 Minutes): Groups will present in a symposium-style session on “Scientific Rationale and Clinical Outcomes of Bloodletting in Pediatrics.” This will be followed by a structured debate on the topic: “Should *leech therapy* be standardized and integrated into modern pediatric care protocols?”
Assessment Methods (Final 30 Minutes): Teacher will assess critical analysis and presentation skills using a critical appraisal checklist. A practical viva will test students’ understanding of the mechanism of action, pediatric contraindications, and therapeutic logic behind *Attai Vidal* and *Keeral.* Group performance will be evaluated for evidence-based reasoning and alignment with *Siddha principles.*

Practical Training 12.8 : Case-Based Analysis of *Siddha* External Therapies in Pediatric Neurological Disorders

Total Duration of the Activity: 2 Hours
This practical session engages students in the critical analysis of published and institutional case reports related to *Siddha external therapies* in managing pediatric neurological conditions such as cerebral palsy, seizure disorders *(Valippu),* and developmental delays. Focus is on understanding therapeutic rationale, intervention protocols *(e.g., Varmam, oil applications, Thokkanam),* observed outcomes, and individualized care strategies.
Instructions to Students (First 30 Minutes): Teacher will distribute selected case reports and clinical summaries involving *Siddha external therapy* in pediatric neurological management. Students will be grouped to analyze each case with attention to presenting symptoms, diagnosis, *Siddha* interventions applied, therapeutic outcomes, and follow-up strategies. A standard case report appraisal format will be provided for guidance.
Students’ Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Each group will analyze their assigned case report, mapping clinical findings to *Siddha* diagnostic understanding, treatment techniques, and observed neurological responses. Emphasis will be on *Varmam* activation, sensory-motor integration, and behavioral changes.
Step – 02 (Next 30 Minutes): Groups will prepare and deliver a brief presentation summarizing the therapeutic progression, outcome documentation, and clinical insights. A peer question session will follow each presentation to promote critical engagement.
Assessment Methods (Final 30 Minutes): Teacher will assess group presentations using a case report checklist focused on clarity, clinical reasoning, and therapeutic alignment. A practical viva will be conducted to evaluate students' understanding of *Siddha* neurological therapy approaches, critical thinking in case analysis, and scope for further research or follow-up care.

Practical Training 12.9 : Documentation and Interpretation of Clinical Trials on *Siddha External Therapies* in Pediatrics

Total Duration of the Activity: 2 Hours
This practical session focuses on the documentation and interpretation of clinical trials involving *Siddha external therapies* in the management of pediatric diseases. Students will study five documented trials or observational studies addressing various disorders (e.g., asthma, cerebral palsy, eczema, colic, seizures), extract relevant data, and create structured case summaries. Emphasis is on understanding study design, interpreting outcomes, and evaluating therapeutic relevance.
Instructions to Students (First 30 Minutes): Teacher will assign five clinical trial reports (published or institutional) on *Siddha external therapies* in pediatric care. Students will receive a case documentation template to record clinical presentation, *Siddha intervention*, methodology, results, and conclusions. Teacher will guide students on how to extract critical elements such as dosage, duration, outcome measures, and safety indicators.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will read and extract data from their assigned trials and document five pediatric cases based on these studies. Each case summary will highlight disease type, intervention applied *(e.g., Pugai, Thokkanam, Varmam)*, outcomes, and noted improvements.
Step – 02 (Next 30 Minutes): Students will form small groups to interpret the data collectively, discussing trends, limitations, and comparative outcomes. They will prepare a consolidated interpretation report and suggest areas for further research or practical validation.
Assessment Methods (Final 30 Minutes): Teacher will evaluate each student's documentation using a structured rubric for accuracy, clarity, and relevance. A practical viva will assess their ability to interpret clinical trial results, apply knowledge in clinical scenarios, and critically reflect on *Siddha external therapy* outcomes in pediatric diseases. Group reports will be reviewed for scientific reasoning and collaborative analysis.

Practical Training 12.10 : Evaluation of Research Studies on Pediatric *Siddha Therapies*

Total Duration of the Activity: 2 Hours
This session focuses on evaluating research studies involving *Siddha* pediatric therapies for developmental delay, immune deficiency, and other childhood disorders. Students will critically analyze evidence on *Siddha* external therapies, assess methodologies, review safety data, and interpret preliminary evidence. The session includes journal critique, symposium-style presentations, and debate on research validity and application potential.
Instructions to Students (First 30 Minutes): Teacher will provide research articles or abstracts on *Siddha pediatric therapies* from published journals. Students will be guided

on how to use a critical appraisal checklist to evaluate study design, sample size, safety reporting, intervention clarity, and statistical significance. Topics for symposium and debate will be assigned.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will conduct a journal critique review in groups, identifying strengths, limitations, and relevance of selected studies on therapies for developmental delays and immune disorders.
Step – 02 (Next 30 Minutes): Each group will present their findings in a symposium format and engage in a debate on the topic: "Can current research evidence justify the clinical integration of Siddha pediatric therapies?" Students will support their stance using appraised literature.
Assessment Methods (Final 30 Minutes): Teacher will use a critical appraisal checklist to assess students' journal review quality. Group presentations will be evaluated for coherence, scientific validity, and ability to communicate findings. A practical viva will test individual understanding of study methodologies, safety profiling, and interpretation of *Siddha* pediatric research data.

Experiential learning Activity

Experiential-Learning 12.1 : *Siddha External Therapies* for Pediatric Autism Spectrum Disorder (ASD) and Attention-Deficit Hyperactivity Disorder (ADHD).

Total Duration of the Activities 4 Hours
This experiential learning workshop trains students in *Siddha external therapies* tailored for neurodevelopmental conditions such as Autism Spectrum Disorder (ASD) and Attention-Deficit Hyperactivity Disorder (ADHD). The session includes hands-on demonstrations of touch therapy, oil application, *Varmam point* stimulation, and other calming interventions. Students will explore the use of soothing external manipulation to support sensory regulation, emotional balance, and behavioral integration. Each therapy will be adapted to the specific sensory and cognitive needs of children with ASD/ADHD.
Instructions to Students (First 30 Minutes): Teacher will demonstrate pediatric-friendly *Siddha external therapies*, focusing on safe pressure zones, modifications in technique, and comfort strategies for neurodiverse children. Students should observe, experience, and document the key objectives and effects of each therapy using sample case narratives.
Students' Activities (Next 180 Minutes)
Step – 01 (60 Minutes): Students will practice soothing external therapies such as gentle massage and mild *Varmam* stimulation on anatomical models. The focus will be on therapies that enhance sensory integration and reduce anxiety in children with ASD. Techniques will be adjusted for tactile sensitivity and comfort.
Step – 02 (60 Minutes): Students will apply *external therapies* tailored to attention regulation and hyperactivity reduction in children with ADHD. Techniques include calming touch sequences, facial and scalp oil application, and *Varmam* for focus and grounding. Each group will document safety measures and technique timing.
Step – 03 (60 Minutes): Students will develop a comprehensive *Siddha*-based care plan for pediatric Autism Spectrum Disorder (ASD) and Attention-Deficit Hyperactivity Disorder (ADHD) using the therapies practiced. Groups will reflect on expected therapeutic benefits, adjust techniques based on age and severity, and summarize their intervention plans for peer discussion.
Assessment (Final 30 Minutes): Teacher will evaluate practical performance using observation rubrics. Case-Based Assessments will measure understanding of therapy selection and adaptation. Students will undergo a practical viva on technique justification and submit a written summary report detailing therapy rationale, procedures, and

expected outcomes for ASD and ADHD management.

Experiential-Learning 12.2 : *Siddha External Therapies* for Developmental Delay and Intellectual Disability

Total Duration of the Activities 3 Hours
This practical session introduces *Siddha external therapies* used for managing intellectual disabilities and developmental delays in children. The focus is on non-invasive therapies that stimulate brain function, enhance neural connectivity, improve concentration, and support motor development. Students will observe faculty demonstrations and practice these therapies on anatomical models or peers with adjusted intensity and positioning appropriate for pediatric care.
Instructions to Students (First 30 Minutes): Teacher will demonstrate *Siddha* external therapies for mental clarity, neural balance, and motor support. Students will learn about key therapeutic points, pressure modulation, session timing, and indications/contraindications. Emphasis will be placed on child safety, pediatric-specific adaptations, and expected therapeutic outcomes.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice *Siddha therapies* designed to support cognitive and intellectual functions in children. Techniques such as gentle cranial stimulation, facial point activation, and soothing manipulations will be applied. Students will document points used, therapeutic methods, and observed benefits related to memory, focus, and neural coordination.
Step – 02 (60 Minutes): Students will perform external therapies for motor and developmental delays, focusing on limb coordination, balance support, and movement initiation. Documentation will include modifications made for pediatric comfort, timing, and assessment of motor response during therapy.
Assessment (Final 30 Minutes): Teacher will assess students using DOPS checklists for each technique. Practical performance will be observed for accuracy, safety, and communication with pediatric patients. A Mini-CEX format will be used to evaluate students' integration of knowledge into hands-on skill during the session.

Experiential-Learning 12.3 : Integrating *Siddha* and Modern *External Therapies* in Pediatric Care

Total Duration of the Activities 3 Hours
This experiential session focuses on practical integration of *Siddha Pura Maruthuvam* with modern pediatric practices for managing musculoskeletal and respiratory conditions. Students will observe and practice *Kattu* (bandaging) and *Kombu Kattal* (splinting), then explore *Pugai* (fumigation) and *Vedhu* (steam therapy) in parallel with modern nebulization techniques. Emphasis will be placed on safety, therapeutic synergy, and child-centered adaptability, enabling students to critically compare and apply both systems in clinical settings.
Instructions to Students (First 30 Minutes): Teacher will demonstrate *Kattu and Kombu Kattal* techniques used in pediatric bone and joint care. Students will also observe *Pugai and Vedhu* and their respiratory applications, followed by a demonstration of modern nebulization. Students should focus on procedure accuracy, indications, and points of therapeutic integration for pediatric care.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice *Kattu and Kombu Kattal* splinting on pediatric models. They will compare anatomical alignment, pressure techniques, and healing benefits with modern splinting methods. A group discussion will follow to reflect on practical applicability and child comfort.

Step – 02 (60 Minutes):Students will simulate *Pugai and Vedhu* for respiratory complaints and observe how symptom relief, temperature regulation, and patient cooperation vary from modern nebulization. A case-based comparative chart will be prepared noting efficacy, adaptability, and procedural differences.
Assessment (Final 30 Minutes): Teacher will assess using DOPS for technique proficiency in *Siddha* and modern methods. Practical Performance will be scored for accuracy, child-friendly modifications, and therapeutic rationale. A Patient Management Problem case will be discussed to evaluate integration strategies and clinical decision-making.

Experiential-Learning 12.4 : Pediatric Pain Relief through *Siddha External Therapies*

Total Duration of the Activities 3 Hours
This experiential session trains students in *Siddha external therapie*s for pediatric pain management, including heat therapy, therapeutic massage, and *Varmam.* Using a problem-based approach, students will analyze simulated clinical pain scenarios and apply appropriate therapeutic techniques tailored to pediatric anatomy. The session emphasizes safe handling, pressure modulation, and the healing benefits of *Siddha therapies* for pain relief and functional recovery.
Instructions to Students (First 30 Minutes): Teacher will introduce clinical pain scenarios (e.g., post-injury, muscular pain, growth-related aches). Demonstrations will follow on heat therapy, *Siddha* massage techniques, and *Varmam*. Students will receive guidance on safe pressure, pediatric positioning, and therapy selection. Prepare to apply these techniques in simulated settings based on case problems.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will apply heat therapy and massage for assigned pediatric pain cases using models or peers. Emphasis will be on correct stroke patterns, pressure application, and child-specific adjustments. Students will record responses and note relief outcomes.
Step – 02 (60 Minutes): Students will engage in *external procedures* for pain scenarios like muscle cramps, joint pain, or post-injury stiffness. They will then solve assigned clinical problems, propose individualized *external therapy* plans, and reflect on the mechanisms behind pain relief in *Siddha.*
Assessment (Final 30 Minutes): Teacher will conduct Scenario-Based Assessment to evaluate how students solve pain-related clinical problems. Practical Problem Solving will assess the selection and execution of *external therapies.* Practical Performance rubrics will score accuracy, child safety, and therapeutic technique.

Experiential-Learning 12.5 : *Siddha* Herbal Paste and Bandaging for Pediatric Wound Care

Total Duration of the Activities 2 Hours
This session introduces students to *Siddha external therapies* for pediatric wound care, focusing on the preparation and application of *Poochu* (herbal paste) and *Kattu* (herbal bandaging). It integrates traditional *Siddha* methods with modern wound care standards, emphasizing aseptic techniques, dressing protocols, and patient safety. Students will gain practical skills and clinical reasoning on how these therapies aid in infection prevention, pain relief, and accelerated healing.
Instructions to Students (First 15 Minutes): Teacher will demonstrate the preparation of herbal pastes and bandages using *Siddha* ingredients. Observe the cleaning, application, and dressing procedures on pediatric wound models. Understand the clinical indications, contraindications, and integration with modern infection control and dressing techniques.
Students' Activities (Next 90 Minutes)

Step – 01 (45 Minutes): Students will prepare and apply *Poochu* (herbal paste) on simulated wound models. Focus will be on consistency of paste, hygienic preparation, and accurate site-specific application.
Step – 02 (45 Minutes): Students will practice *Kattu* (herbal bandaging) techniques, ensuring appropriate tightness, wound coverage, and patient comfort. Each student will record procedural steps and note safety protocols followed.
Assessment (Final 15 Minutes): Teacher will assess performance using DOPS, focusing on procedure accuracy, hygiene, and safety. Practical Performance Checklists will evaluate correct paste application and bandage technique. Reflection will be encouraged to assess integration of Siddha with modern wound care.

Experiential-Learning 12.6 : Case Study Documentation: Pediatric *External Therapies* for Skin and Respiratory Conditions

Total Duration of the Activities 4 Hours
In this session, students will analyze documented or simulated pediatric cases of skin conditions and respiratory conditions. They will observe and review *external therapies* like *Poochu, Thylam, Nasiyam, Pugai, Ottradam, and Vedhu,* and document therapy protocols, responses, and pediatric adjustments. Students will prepare structured case reports aligned with *Siddha* therapeutic documentation standards, integrating classical references and real-world observation.
Instructions to Students (First 30 Minutes): Teacher will introduce sample cases of pediatric skin and respiratory conditions. Students will receive guidelines for documenting therapy type, dosage, point selection, materials, and observed responses. Instructions will also include referencing *Siddha texts* and correlating traditional indications with modern symptomatology. A structured case study format will be explained.
Students' Activities (Next 180 Minutes)
Step – 01 (90 Minutes): Students will document *external therapies* used in assigned pediatric cases, focusing on skin and respiratory conditions. Details should include therapy objectives, *Siddha* rationale, materials, techniques, and pediatric safety modifications.
Step – 02 (90 Minutes): Students will present their documented case studies in small peer groups for feedback. Group discussion will focus on clinical reasoning, *Siddha* justifications, and therapy outcomes. Students will revise their documentation based on peer and teacher input and submit a final compilation.
Assessment (Final 30 Minutes): Teacher will assess students through Case-Based Assessment rubrics, evaluating diagnostic coherence, treatment planning, and documentation quality. Trainer's Report will include participation and accuracy. Compilations and Presentations will be evaluated for integration of classical and clinical content, and clarity of therapeutic rationale.

Experiential-Learning 12.7 : Documentation of Pediatric *Siddha External Therapies*

Total Duration of the Activities 3 Hours
This experiential session trains students to systematically document *Siddha external therapies* practiced in pediatric care, including *Varmam, Thokkanam, Kattu, Pugai, Vedhu, and Poochu.* Emphasis is placed on correctly recording therapy types, point locations, pressure techniques, duration, materials used, therapeutic indications, and post-therapy observations. Students will refer to classical texts and observed clinical sessions to compile comprehensive treatment records. The goal is to promote standardized, clear, and clinically relevant documentation that supports pediatric *Siddha* therapeutic outcomes and continuity of care.
Instructions to Students (First 30 Minutes); Teacher will introduce the importance of structured documentation in *Siddha* pediatric practice. Students will be provided with

case-based therapy outlines, patient record formats, and classical references. Instructions will cover how to capture therapy components such as point location, dosage (pressure/time), indications, and observed responses, ensuring clarity and reproducibility.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will document *Siddha* external therapies from observed or simulated pediatric cases. This includes *Varmam* point mapping, *Thokkanam* procedures, or bandaging methods. Each entry should reflect therapeutic goals, methods used, and modifications for pediatric care.
Step – 02 (60 Minutes): Students will engage in peer review of each other's documentation. Corrections and enhancements will be discussed. Each student will finalize their documentation and prepare a brief presentation on one therapy modality, highlighting its clinical relevance and proper recording technique.
Assessment (Final 30 Minutes): Teacher will assess students using Record Keeping rubrics focusing on clarity, completeness, and relevance. Trainer's Report will capture student engagement, documentation accuracy, and ability to apply theoretical knowledge practically. Presentations will be evaluated for structure, understanding, and communication of documented therapies.

Experiential-Learning 12.8 : Case-Based Evidence Review of *Siddha External Therapies* in Pediatrics

Total Duration of the Activities 4 Hours
Students will participate in a structured workshop analyzing real-world documented clinical outcomes of *Siddha external therapies (Pura Maruthuvam)* in pediatric care. Case reports, pilot studies, and clinical trials involving therapies like *Varmam, Thokkanam, Nasiyam, Poochu, and Pugai* will be reviewed across various pediatric conditions including neurological, dermatological, respiratory, and developmental disorders. Students will engage in literature synthesis, outcome assessment, and integration mapping with modern pediatric frameworks. Emphasis will be placed on developing critical appraisal skills, research comprehension, and application in evidence-based *Siddha practice.*
Instructions to Students (First 30 Minutes): Teacher will assign clinical documents including case reports, *Siddha* clinical trials, and *Siddha* textbook excerpts. Students will be guided on how to extract and structure clinical evidence, identify outcome measures, and interpret safety and therapeutic indicators. Clarify terminologies related to *Siddha therapies* and prepare for group-based critical evaluation.
Students' Activities (Next 180 Minutes)
Step – 01 (60 Minutes): Students will analyze selected case reports and case series involving pediatric *Siddha* external therapies for neurological, respiratory, and skin diseases. Note the clinical context, therapeutic rationale, and observed results.
Step – 02 (60 Minutes): Review pilot studies and clinical trials in *Siddha* pediatrics. Summarize key findings, critique study design, and assess the validity and transferability of outcomes to broader clinical practice.
Step – 03 (60 Minutes): Prepare a group presentation focusing on a selected case or clinical trial. Highlight therapeutic success, integration opportunities with modern pediatric care, and propose areas for further clinical research or collaborative models.
Assessment (Final 30 Minutes): Teacher will evaluate students using Case-Based Assessment rubrics, focusing on evidence interpretation, group engagement, and clarity of presentation. Trainer's Report will document participation and team dynamics. Critical Reading Papers will assess student ability to interpret research outcomes and apply them to *Siddha* pediatric care.

Modular Assessment	
Assessment method	**Hour**
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 6C. Section A - This 25-mark assessment evaluates the student's ability to manage pediatric neurodevelopmental and external symptom-based conditions using Siddha principles. It focuses on mental retardation, ASD, ADHD, behavioral disorders, developmental delay, wound care, ENT symptoms etc.,. Emphasis is placed on diagnosis, therapeutic integration, symptom handling, preventive care, and communication with caregivers. Instructions to Students : Students will be given a case scenario involving conditions such as mental retardation, ASD, ADHD, behavioral disorders, developmental delay, wound care, ENT symptoms etc.,.. Analyze the case using *Siddha* diagnostic tools and propose external, and supportive therapeutic strategies. Suggest appropriate preventive care and follow-up. Present and justify their clinical reasoning and Siddha interventions during a short structured viva interaction. Instructions to Teachers: Develop structured patient scenarios from the provided content areas. Evaluate students' understanding of Siddha diagnosis, treatment formulation, and their ability to link symptom analysis with therapeutic strategies. Use observation and scoring rubrics to assess clarity, clinical reasoning, and communication, particularly for external and integrative *Siddha* pediatric interventions. Mark Distribution : The total of 25 marks is distributed across five components. Case Analysis and Siddha Diagnosis is allotted 7 marks, emphasizing the student's ability to identify condition-specific features and apply Siddha diagnostic frameworks. Therapeutic Planning, including external and supportive measures, carries 6 marks. Symptom management and prognosis interpretation carry 5 marks, followed by 4 marks for preventive and follow-up strategies. Communication and confidence during mini-viva are evaluated for 3 marks. & Section – B. This 25-mark assessment evaluates student proficiency in performing key *Siddha* external therapeutic procedures for pediatric conditions. Students will demonstrate techniques like heat application, splinting, *Varmam* manipulation, drug instillation, and safe bloodletting. Emphasis is placed on procedural accuracy, patient safety, and ability to assist or independently execute under supervision. Instructions to Students : Students will be required to demonstrate selected Siddha external procedures including *Ottradam, Kattu, Thokkanam, Nasiyam, and Attai Vidal* on simulated or real observation models. Perform each task with appropriate technique, hygiene, and patient handling. Their role may involve full demonstration or supervised assistance. Follow the teacher's instructions carefully. Instructions to Teachers : Assign each student to demonstrate or assist in one or more core *Siddha* procedures. Observe technique precision, adherence to safety standards, and communication clarity. Use observation checklists to score practical steps, confidence, and readiness. Encourage verbal explanation of therapeutic relevance during the procedure. Evaluate consistency and practical knowledge. Mark Distribution (50 words): Marks are distributed across five procedure-based OSPE stations. Station 1: Heat Application *(Ottradam, Vedhu, Suttigai)* – 5 marks; Station 2: Immobilization Techniques *(Kattu, Patru)* – 5 marks; Station 3: *Varmam and Thokkanam* Demonstration – 5 marks; Station 4: Drug	4

Applications *(Nasiyam, Kalikkam)* – 5 marks; Station 5: Blood Letting *(Attai Vidal, Keeral)* – 5 marks. Total – 25 Marks.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

Semester No : 5

Module 13 : ??????? ???? ?????????????? ??????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Virivana Maruthuva Muraigal (Comprehensive Management for Special Children)

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

Describe behavioral and educational interventions in pediatric rehabilitation.
Describe integrative medical and Siddha treatments for pediatric disabilities.
Apply physical, occupational, and speech therapies for neurodevelopmental care.
Identify causes and therapies for common pediatric neurological impairments.
Evaluate integrated care for speech, sensory, and musculoskeletal disorders.
Analyze cerebral palsy and seizure disorder management using combined approaches

M 13 Unit 1 ??????? ?????????????? ????? ??????? ??????? ???? ????? ?????????? - Sirappu Kuzhanthaikalukkana Kalvi matrum Ulaviyal Samooga Amaippukal -Educational and Psychosocial Support Systems for Special Children

13.1.1 Behavioral Therapy – Positive reinforcement, Applied Behavior Analysis (ABA), emotional regulation, coping strategies, parental participation, social stories, behavior modeling.
13.1.2 Special Education and Early Intervention – Individualized Education Plans (IEP), developmental delay intervention, adaptive learning, inclusive education, self-care training, independence promotion.
13.1.3 Psychotherapy and Counseling – Play therapy, art therapy, talk therapy, anxiety and depression support, trauma healing, Cognitive Behavioral Therapy (CBT), family counseling.

13.1.4 Social Skills Training – Peer interaction development, verbal and non-verbal cues, conflict resolution, role play, empathy building, trust enhancement, cooperation training.
13.1.5 Parental Education and Support – Caregiver training, stress reduction, crisis response, support networks, financial and legal guidance, emergency preparedness, family empowerment.

References: 26,38,122,126

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO6	Discuss behavioral therapies, educational interventions, and counseling methods in pediatric developmental disorders.	1	Lecture	CC	Know	L&PPT ,CBL
CO4,CO6,CO7	Apply early intervention and Individualized Education Plans (IEP) strategies for pediatric developmental delays.	2	Practical Training 13.1	CAP	Shows-how	RP,SIM,CBL
CO3,CO4,CO7	Perform pediatric counseling techniques using simulation-based scenarios	3	Experiential-Learning 13.1	PSY-GUD	Does	CBL,TBL ,DIS,SIM, RP
CO4,CO6,CO8	Apply strategies for enhancing pediatric social skills and empowering parents through supportive educational interventions.	1	Lecture	AFT-VAL	Know	L&GD
CO4,CO6,CO7	Demonstrate social interaction strategies to support special children.	2	Practical Training 13.2	AFT-RES	Shows-how	SIM,RP,PL
CO4,CO5,CO7	Demonstrate caregiver training using *Siddha*-based counseling techniques	3	Experiential-Learning 13.2	PSY-GUD	Does	W,RP,SIM,CBL,L&GD
CO4,CO6,CO7	Practice pediatric psychotherapy and behavior therapy techniques interactively	2	Practical Training 13.3	PSY-GUD	Shows-how	RP,SIM,CBL

M 13 Unit 2 ??????? ??????????????? ??????? ???????? ????????????- Sirappu Kuzhanthaikalukkana Palthurai Sikitchai Anugumuraigal Multidisciplinary Therapeutic Approaches for Special Children

13.2.1 Medical Management – Antiepileptic therapy, muscle relaxants, behavioral medications, nutritional support, feeding strategies, growth monitoring, co-morbidity management.
13.2.2 Surgery and Orthopedic Interventions – Skeletal deformity correction, muscle release surgeries, scoliosis management, assistive device support, pre- and post-surgical care, rehabilitation coordination.
13.2.3 Physical Therapy (PT) – Gait training, balance control, coordination improvement, muscle strengthening, mobility aids, hydrotherapy, cerebral palsy rehabilitation.
13.2.4 Occupational Therapy (OT) – Dressing and grooming skills, sensory integration, upper limb strength, motor coordination, assistive technologies, cognitive enhancement activities.
13.2.5 Speech and Language Therapy – Speech clarity, articulation support, apraxia and dysarthria therapy, language comprehension, non-verbal communication, stuttering control, social language development.

References: 13,108,112,122,132

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO6	Apply integrated medical, surgical, and physiotherapy strategies in managing pediatric neuro-musculoskeletal conditions effectively.	1	Lecture	CAP	Know	L&GD
CO3,CO6,CO8	Demonstrate pediatric Occupational Therapy (OT) skills to improve daily functioning	3	Experiential-Learning 13.3	PSY-MEC	Does	PAL,SIM,D,W,DIS
CO2,CO4,CO6	Describe pediatric Occupational Therapy (OT) and speech therapies to enhance motor coordination, sensory integration, and communication skills.	1	Lecture	CC	Know	L&GD
CO3,CO4,CO6	Demonstrate pediatric Physical Therapy (PT) techniques to improve motor and mobility functions.	2	Practical Training 13.4	PSY-MEC	Shows-how	PAL,SIM,D-BED
CO3,CO4,CO7	Demonstrate speech therapy techniques for pediatric communication challenges	3	Experiential-	PSY-	Does	PL,D,D-B

			Learning 13.4	GUD		ED,SIM,W
CO3,CO4,CO6	Demonstrate occupational therapy strategies for enhancing daily living skills.	2	Practical Training 13.5	PSY-MEC	Shows-how	D-BED,PL,SIM
CO3,CO4,CO6	Demonstrate speech therapy techniques for pediatric communication disorders.	2	Practical Training 13.6	PSY-MEC	Shows-how	PL,SIM,RLE,D-BED

M 13 Unit 3 ??????? ???????????? ????? ??????? ??????? ??????? ??????????? - Sirappu Kuzhanthaikalil Pulan Matrum Amaippu Saarntha Kuraipadugal - Sensory and Structural Impairments in Special Children

13.3.1 Speech Disorders (Apraxia, Stuttering, Dysarthria) – Speech delay, articulation difficulty, neurological basis, conventional therapy, Siddha integration, rehabilitation research, communication enhancement.
13.3.2 Spina Bifida – Neural tube defect, lower limb weakness, bladder dysfunction, diagnostic imaging, Siddha care, surgical management, mobility support, research innovations.
13.3.3 Orthopedic Impairments – Musculoskeletal disability, joint deformities, gait abnormalities, therapy modalities, Siddha techniques, integrative rehabilitation, functional restoration.
13.3.4 Hydrocephalus – Cerebrospinal fluid accumulation, head enlargement, developmental delays, neuroimaging diagnosis, shunt procedures, Siddha support, care integration.
13.3.5 Sensory Impairments (Hearing and Visual) – Auditory and visual deficits, sensory loss detection, assistive technologies, Siddha therapies, sensory rehabilitation, neuroplasticity research.

References: 13,108,112,122,132

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Describe pediatric speech disorders and spina bifida with diagnostic, therapeutic, and Siddha-integrated management strategies.	1	Lecture	CC	Know	L
CO2,CO3,CO6	Discuss orthopedic and sensory impairments with therapeutic strategies and Siddha-integrative rehabilitation approaches.	1	Lecture	CC	Know	BL,L&GD

CO3,CO4,CO6	Demonstrate integrative orthopedic rehabilitation using *Siddha* and modern approaches	3	Experiential-Learning 13.5	PSY-GUD	Does	CBL,W,RP,D,D-BED
CO3,CO4,CO6	Demonstrate techniques to assess and support pediatric sensory impairments.	2	Practical Training 13.7	PSY-MEC	Shows-how	RLE,PL,D-BED,SIM
CO2,CO4,CO5	Apply *Siddha* and modern methods for pediatric sensory rehabilitation	3	Experiential-Learning 13.6	PSY-GUD	Does	D,SIM,CBL
CO2,CO3,CO6	Describe hydrocephalus pathophysiology, diagnosis, treatment options, and Siddha-integrated pediatric management strategies.	1	Lecture	CC	Knows-how	L,L&GD

M 13 Unit 4 ?????? ??????? ??? ???????????? ??????? ???????? ??????? – Narambu Matrum Thsai Noigalukkana Virivana Sikitchai Mauraigal - Comprehensive management of Neurological and Muscular Disorders

13.4.1 Cerebral Palsy (CP) – Motor dysfunction, perinatal causes, spasticity patterns, functional limitations, Siddha and conventional rehabilitation, integrative care models, research and entrepreneurship.
13.4.2 Hemiparesis, Hemiplegia, and Quadriplegia – Partial and complete paralysis, motor weakness, diagnostic evaluation, therapy interventions, Siddha integration, neurological recovery enhancement.
13.4.3 Muscular Dystrophy – Genetic muscle disorders, progressive weakness, functional decline, physiotherapy, Siddha *therapies*, quality of life improvement, translational research.
13.4.4 Epilepsy – Recurrent seizures, neurological dysfunction, EEG monitoring, anti-epileptic therapy, Siddha protocols, integrative neurological management, innovation in care.
13.4.5 Seizure Disorders – Convulsions, focal and generalized types, Siddha and allopathic synergy, comprehensive seizure control, rehabilitation strategies, modern treatment advances.

References: 132

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

CO2,CO3,CO5	Demonstrate *Siddha* therapies for pediatric motor rehabilitation	4	Experiential-Learning 13.7	PSY-GUD	Does	W,CBL,C_L,D-BED,RP
CO2,CO3,CO6	Describe epilepsy and seizure types with diagnostic tools, therapies, and Siddha-integrative management approaches.	1	Lecture	CC	Knows-how	L&GD,BL
CO2,CO3,CO6	Describe muscular dystrophy features, progression, therapies, and Siddha-integrated care for quality of life.	1	Lecture	CC	Know	BL,L&GD
CO2,CO3,CO6	Describe cerebral palsy and paralytic disorders with diagnostic, therapeutic, and Siddha-integrated management strategies.	1	Lecture	CC	Knows-how	L&GD
CO2,CO3,CO5	Design integrative seizure care plans using *Siddha* and modern tools	4	Experiential-Learning 13.8	PSY-GUD	Does	CBL,BS,D-BED,D-M,SIM
CO3,CO4,CO6	Analyze Cerebral Palsy management techniques and propose integrative care strategies.	2	Practical Training 13.8	CAN	Knows-how	LS,TBL,BL,DIS
CO2,CO4,CO6	Analyze paralysis types and propose integrative therapy approaches.	2	Practical Training 13.9	CAN	Knows-how	DIS,TBL,LS,BL
CO3,CO4,CO6	Analyze seizure types and propose integrative management strategies.	2	Practical Training 13.10	CAN	Knows-how	DIS,BL,TBL

Practical Training Activity

Practical Training 13.1 : Special Education and Early Intervention in Developmentally Delayed Children

Total Duration of the Activity: 2 Hours
This session introduces students to key components of special education and early intervention for children with developmental delays. Focus areas include designing Individualized Education Plans (IEP), promoting adaptive learning, and training in self-care to enhance functional independence. Students will simulate classroom planning, observe developmental case profiles, and explore inclusive strategies to address cognitive, behavioral, and sensory challenges.

Instructions to Students (First 30 Minutes): Teacher will introduce core concepts of IEP development, intervention goals, and inclusive learning techniques. Simulated pediatric profiles representing various delays (speech, motor, social) will be distributed. Students will be oriented to frameworks for setting goals, selecting interventions, and supporting self-help skills.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will develop IEPs based on the provided case scenarios, incorporating short-term objectives, adaptive strategies, and family/caregiver support elements. Emphasis will be placed on interventions for communication, learning, and independence.
Step – 02 (Next 30 Minutes): Students will participate in role play simulations demonstrating classroom modifications, self-care training (e.g., feeding, dressing), and inclusive group activities tailored for developmentally delayed children.
Assessment Methods (Final 30 Minutes): Teacher will assess IEP documents and participation using a structured checklist. A case interpretation report will be submitted by each student reflecting on applied strategies. A practical viva will evaluate their understanding of early intervention principles, goal setting, and pediatric inclusivity in special education contexts.

Practical Training 13.2 : Social Skills Training for Special Children: Interaction, Empathy, and Cooperation

Total Duration of the Activity: 2 Hours
This session focuses on building and enhancing social skills in special children, particularly those with developmental, behavioral, or emotional challenges. Students will explore and practice strategies to improve peer interaction, interpret verbal and non-verbal cues, resolve conflicts, and build trust, empathy, and cooperation. Through simulation and structured role play, learners will model appropriate social responses and design child-friendly interaction modules.
Instructions to Students (First 30 Minutes): Teacher will explain the importance of social skill development in special education, highlighting barriers and intervention techniques. Students will observe video clips of peer interactions, explore empathy-building tools, and review role play structures to model conflict resolution, turn-taking, and emotional expression in children.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will engage in structured role plays simulating real-life situations like group play, classroom interaction, and emotional outbursts. They will practice prompting verbal and non-verbal responses, using visual cues, modeling cooperative behavior, and addressing social misunderstandings.
Step – 02 (Next 30 Minutes): Students will develop a simple social skills training module for special children, including objectives (e.g., trust building, cooperation), methods (e.g., storytelling, games), and session structure. Each student will present key components to the group.
Assessment Methods (Final 30 Minutes):Teacher will evaluate participation and sensitivity in role play using a behavioral checklist. A reflective log will be submitted by each student describing key learnings and challenges in fostering social skills. A practical viva will test understanding of social development needs, intervention strategies, and contextual application in pediatric special education.

Practical Training 13.3 : Therapeutic and Behavioral Interventions for Pediatric Mental Health

Total Duration of the Activity: 2 Hours

This practical introduces students to hands-on psychotherapeutic and behavioral methods for pediatric anxiety, depression, trauma, and emotional or social difficulties. Techniques include Play Therapy, Art Therapy, Cognitive Behavioral Therapy (CBT), Talk Therapy, Positive Reinforcement, Applied Behavior Analysis (ABA), Social Stories, and Family Counseling. Emphasis is placed on student-led simulation, role play, and development of customized intervention strategies for fictional pediatric cases, fostering empathy and clinical confidence.
Instructions to Students (First 30 Minutes): Teacher will introduce pediatric psychotherapy techniques with illustrative case vignettes. Demonstrations will include art therapy tools, play kits, CBT scripts, and emotional coaching role-plays. Behavioral methods such as reward charts, modeling, and ABA-based behavior modification will be explained using models and video demonstrations. Students will be grouped and guided to prepare for interactive activities.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will simulate pediatric counseling scenarios in small groups using role-play. They will practice play therapy, emotional talk therapy, CBT-based exercises, and behavioral interventions such as modeling and reinforcement strategies for mock child behavior situations.
Step – 02 (Next 30 Minutes):Each group will design a concise intervention toolkit for a fictional pediatric case. The toolkit will integrate a coping chart, parent guide, and therapeutic tools like art/story templates. Groups will present their plan and explain the therapeutic rationale.
Assessment Methods (Final 30 Minutes): Teacher will assess each group's performance using a structured checklist evaluating communication skills, application of therapy techniques, and creativity. Students will submit a reflective report on their experience. A practical viva will test understanding of therapy frameworks, ethical care, and child-specific adaptation.

Practical Training 13.4 : Physical Therapy (PT) Techniques for Functional Improvement in Special Children

Total Duration of the Activity: 2 Hours
This bedside practical session trains students in core physical therapy techniques for special children with neuromuscular and developmental challenges. Emphasis is on gait training, balance control, coordination, muscle strengthening, and mobility enhancement using aids and supportive devices. Students will also be introduced to hydrotherapy principles and modifications required for pediatric application.
Instructions to Students (First 30 Minutes): Teacher will perform bedside demonstrations of Physical Therapy (PT) interventions using simulated or real pediatric cases. Techniques such as gait pattern correction, balance board training, resistance exercises, and mobility aid usage will be shown. A brief overview of hydrotherapy tools, child engagement strategies, and safety protocols will be discussed.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will practice under supervision: Gait training using parallel bars or walkers, Balance and coordination tasks like toe-walking or ball games and Muscle strengthening with low-resistance bands for limbs and trunk
Step – 02 (Next 30 Minutes): Students will prepare a quick functional PT plan for a child case scenario involving cerebral palsy or motor delay. Plans should include selected exercises, goal-setting, and choice of mobility aids or hydrotherapy if applicable.
Assessment Methods (Final 30 Minutes): Teacher will assess technical proficiency and safety through a DOPS checklist during student performance. A practical viva will test understanding of PT principles, patient-specific adaptations, and therapeutic goals in managing special children. Students' functional PT plans will also be reviewed for logical structure and clinical relevance.

Practical Training 13.5 : Occupational Therapy (OT) Interventions for Functional Independence in Special Children

Total Duration of the Activity: 2 Hours

This practical session trains students in the application of Occupational Therapy (OT) for special children with developmental delays, neurological conditions, or sensory integration disorders. Focus areas include dressing and grooming training, sensory integration, upper limb strength, motor coordination, cognitive stimulation, and use of assistive tools. Bedside demonstrations will guide the execution of functional tasks tailored to pediatric needs.

Instructions to Students (First 30 Minutes): Teacher will conduct live or simulated bedside demonstrations of occupational therapy exercises and adaptive techniques. Students will observe training methods for dressing, grooming, motor-coordination games, use of assistive grips, cognitive puzzles, and sensory toys. Safety, age-appropriateness, and motivation techniques will be highlighted.

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will practice grooming tasks using adaptive equipment, simulate upper limb strengthening tasks with therapy putty or resistance tools, and perform coordination activities such as threading, pegboards, or balance play.

Step – 02 (Next 30 Minutes): Students will prepare a personalized OT activity plan for a given pediatric profile (e.g., a child with ASD or hemiparesis), including daily living training goals, therapeutic tools, and sensory-cognitive support strategies.

Assessment Methods (Final 30 Minutes):Teacher will use a DOPS checklist to evaluate skill execution, tool usage, and therapeutic engagement. A practical viva will assess knowledge of occupational goals, pediatric safety, and therapy adaptations. The OT plan submitted by students will be reviewed for relevance, clarity, and individualized care planning.

Practical Training 13.6 : Speech and Language Therapy for Pediatric Speech Disorders – Bedside Demonstration

Total Duration of the Activities: 2 Hours

This bedside experiential session introduces students to speech and language therapy for children with speech delay, apraxia, dysarthria, and stuttering. Students will observe techniques for speech clarity, articulation, non-verbal communication, and language comprehension. Conventional methods will be demonstrated alongside discussion on *Siddha* integration in neurodevelopmental rehabilitation. The focus is on enhancing pediatric communication through structured bedside engagement.

Instructions to Students (First 30 Minutes): Teacher will demonstrate therapy procedures on pediatric cases or simulations. This includes articulation tasks, stuttering control techniques, and AAC (Augmentative and Alternative Communication) tools. Students will observe therapy approaches for apraxia and dysarthria and their neurological basis, with contextual inputs on complementary *Siddha therapies.*

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Students will practice articulation drills, stuttering modulation tasks, and comprehension strategies using visual cues and speech therapy tools (e.g., flashcards, syllable boards) on peer simulations or mannequins.

Step – 02 (Next 30 Minutes): Students will develop a basic rehabilitation plan for a case of speech delay or dysarthria, incorporating conventional therapy, communication aids, and where appropriate, *Siddha*-based supportive strategies (e.g., oil therapies, calming points).

Assessment (Final 30 Minutes): Teacher will use a DOPS checklist to assess therapy execution, tool handling, and communication sensitivity. A practical viva will evaluate students' understanding of speech disorders, neurological underpinnings, therapy goals, and the scope for integrative rehabilitation. Students' rehabilitation plans will be reviewed for personalization and feasibility.

Practical Training 13.7 : Bedside Demonstration of Therapeutic Strategies for Pediatric Hearing and Visual Sensory Impairments

Total Duration of the Activity: 2 Hours
This bedside practical session focuses on identifying and managing hearing and visual sensory impairments in pediatric patients. Students will learn methods to detect sensory deficits, explore assistive technologies (e.g., hearing aids, visual tools), observe *Siddha therapy* applications for sensory enhancement, and discuss the role of neuroplasticity in rehabilitation. Emphasis is on functional evaluation, early support, and caregiver integration.
Instructions to Students (First 30 Minutes): Teacher will demonstrate bedside screening techniques (e.g., sound localization, light response, simple communication tasks) on simulated or real pediatric cases. Use of assistive tools like hearing devices, visual cue cards, and tactile boards will be shown. Students will also be oriented to *Siddha* supportive therapies (e.g., herbal ear drops, oil therapies around visual *Varmam points).*
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will practice sensory testing (auditory and visual) using models or peers. They will explore low-tech assistive tools and simulate therapy-enhancing communication techniques for partially hearing/seeing children.
Step – 02 (Next 30 Minutes): Students will develop a supportive care protocol for a child with hearing or visual impairment, integrating conventional assistive methods and relevant *Siddha* therapy elements. Focus will be on daily functionality, learning engagement, and sensory stimulation.
Assessment Methods (Final 30 Minutes):Teacher will assess students using a DOPS checklist for procedural accuracy, safety, and patient-centered application. A practical viva will evaluate understanding of sensory loss mechanisms, assistive tools, *Siddha* integration, and neuroplasticity-based rehabilitation planning. Student-developed protocols will be reviewed for clarity, feasibility, and therapeutic balance.

Practical Training 13.8 : Contemporary Medical and Surgical Management of Cerebral Palsy: A Blended Learning Approach

Total Duration of the Activity: 2 Hours
This session aims to enhance student understanding of modern medical and surgical techniques for managing Cerebral Palsy (CP). Focus includes identifying motor dysfunction, analyzing spasticity patterns, understanding functional limitations, and exploring conventional rehabilitation approaches. The session promotes team-based critical reading of clinical literature, followed by creative and reflective documentation, while encouraging entrepreneurial thinking and integration of care models.
Instructions to Students (First 30 Minutes): Teacher will initiate a blended session using multimedia tools, reading materials, and library references. Students will be divided into groups and assigned clinical papers to critically read and analyze. Focus areas include perinatal causes and early detection, surgical interventions like SDR or orthopedic corrections, and medical management using anti-spastic agents.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Each group will summarize key findings from their assigned papers into a compiled document, highlighting methods, outcomes, gaps, and

future potential. Peer interaction will be encouraged to exchange insights across groups.
Step – 02 (Next 30 Minutes): Students will write a short creative reflection or essay on an innovation or integrative care model they envision (e.g., combining physiotherapy with *Siddha oil therapies* or designing a CP-friendly therapy device). They will share their thoughts through brief group presentations.
Assessment Methods (Final 30 Minutes): Teacher will assess the quality of compilation outputs and critical reading summaries for depth and accuracy. Peer assessments will capture team contribution and communication clarity. Interactive discussions will be observed to evaluate articulation, analytical ability, and integrative thinking in CP care.

Practical Training 13.9 : Multidisciplinary Approaches to Pediatric Hemiparesis, Hemiplegia, and Quadriplegia

Total Duration of the Activity: 2 Hours
This practical session focuses on the clinical understanding and management of Hemiparesis, Hemiplegia, and Quadriplegia in pediatric neurology. Students will explore causes, patterns of motor weakness or paralysis, diagnostic methods, and interventions to support neurological recovery. Through blended learning and team-based analysis, students will integrate knowledge from both modern therapy and supportive care contexts.
Instructions to Students (First 30 Minutes): Teacher will conduct a blended session using videos, scientific articles, and library resources. Students will be grouped to critically read assigned papers focused on partial and complete paralysis, motor weakness patterns, and evidence-based therapies. Each group will prepare notes for discussion and collaborative interpretation of neurological rehabilitation strategies.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will compile a structured summary of diagnostic approaches, functional classification (hemiparesis, hemiplegia, quadriplegia), and medical/surgical interventions. Each group will contribute key insights to a peer-led discussion.
Step – 02 (Next 30 Minutes): Students will complete a creative writing task, developing a patient-centered recovery plan or reflective narrative describing therapeutic goals and emotional challenges. Focus will be on holistic care and caregiver support.
Assessment Methods (Final 30 Minutes):Teacher will assess compiled outputs and critical reading through a structured checklist. Peer interaction will be evaluated for engagement and clarity. Creative submissions and group presentations will be reviewed for clinical understanding, empathy, and problem-solving ability in pediatric neurorehabilitation.

Practical Training 13.10 : Integrated Management of Pediatric Epilepsy and Seizure Disorders

Total Duration of the Activity: 2 Hours
This session focuses on understanding epilepsy and seizure disorders in children, including recurrent seizures, neurological dysfunction, and Electroencephalogram (EEG)-based diagnosis. It covers focal vs. generalized convulsions, anti-epileptic therapies, rehabilitation strategies, and innovations in integrative care. Students will engage in critical reading, collaborative analysis, and solution-oriented creative tasks.
Instructions to Students (First 30 Minutes): Teacher will conduct a blended session using clinical videos, Electroencephalogram (EEG) visuals, and selected journal articles. Students will be grouped and assigned critical papers on seizure classification, anti-epileptic drug protocols, integrative therapy models, and neurorehabilitation advances. Each group will prepare for collaborative synthesis and discussion.

Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Students will compile a case-based summary covering seizure identification, treatment modalities, and long-term care approaches. Each group will compare standard care with integrative models.
Step – 02 (Next 30 Minutes): Students will write a creative reflection or care proposal outlining an innovative solution (e.g., caregiver toolkit, mobile monitoring aid, *Siddha* adjunct *therapy* model) for pediatric epilepsy management.
Assessment Methods (Final 30 Minutes): Teacher will assess the case compilations and critical paper reviews using structured rubrics. Peer evaluations will assess contribution and teamwork. A practical viva will be conducted to assess understanding of seizure control strategies, therapy planning, and innovation potential in pediatric neurological care.

Experiential learning Activity

Experiential-Learning 13.1 : Pediatric Counseling Techniques through Simulation and Role Play

Total Duration of the Activities: 3 Hours
This session introduces psychotherapy and counseling techniques suitable for pediatric patients using simulated scenarios. Students will engage in observing and performing role-plays involving play therapy, art therapy, and cognitive behavioral therapy. Emphasis is placed on communication strategies, emotional validation, and developing resilience in children facing chronic illnesses, disabilities, or psychological stressors. Faculty will facilitate guided simulations and feedback.
Instructions to Students (First 30 Minutes): Teacher will provide an overview of psychotherapy types, key counseling principles, and therapeutic communication. Students will observe live demonstrations of therapist-child-family interactions. Guidance will be provided on active listening, emotional validation, and empathy techniques used in pediatric mental health settings.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will engage in role-play exercises practicing CBT, play therapy, and grief counseling. Each student will rotate roles as therapist, child, and caregiver. Faculty will observe and guide communication techniques and therapeutic approach.
Step – 02 (Next 60 Minutes): Students will analyze a given pediatric case and prepare a tailored therapy plan including goals, type of therapy, session timeline, and family involvement strategies. They will present the plan and discuss counseling's role in improving pediatric outcomes.
Assessment (Final 30 Minutes): Teacher will assess student performance through a structured checklist evaluating participation, technique accuracy, empathy, and communication. Peer and role-play evaluations will complement the final review based on clarity, engagement, and applicability of the therapy plan.

Experiential-Learning 13.2 : Parental Education and Support in Pediatric *Siddha* Care

Total Duration of the Activities: 3 Hours
This workshop simulates caregiver training for parents of children with special needs. Through role-play and discussion, students learn to deliver *Siddha*-based counseling on stress management, emergency preparedness, and support systems. The activity highlights the importance of guiding caregivers through financial, legal, and psychosocial aspects of chronic pediatric care. Faculty lead demonstrations and provide feedback.

Instructions to Students (First 30 Minutes): Teacher will explain caregiver responsibilities, common stressors, and support mechanisms. Students will learn about emergency response education, relaxation techniques, financial/legal aid, and building caregiver confidence. Prepare to role-play as *Siddha* physicians advising parents in various caregiving situations.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will perform role-plays simulating caregiver training. They will demonstrate techniques for stress reduction, educating on emergency response, and connecting parents with financial and community resources. Teacher will guide role enactment and feedback.
Step – 02 (Next 60 Minutes): In groups, students will create a support plan for a hypothetical case involving a special needs child. Plans will include caregiver training content, emergency and crisis protocols, and resource mapping. Each group will present and reflect on counseling strategies.
Assessment (Final 30 Minutes): Teacher will assess student role-play and group presentation using a structured checklist. Evaluation will include clarity of communication, applicability of support strategies, and integration of *Siddha* counseling elements. Peer feedback will support reflective improvement.

Experiential-Learning 13.3 : Occupational Therapy Interventions for Pediatric Independence

Total Duration of the Activities: 3 Hours
This experiential learning session introduces students to essential occupational therapy (OT) techniques used to enhance functional independence in pediatric patients with physical or neurological challenges. Students will observe faculty-led demonstrations focused on grooming, feeding, dressing, and assistive tool usage. They will then engage in hands-on simulations, practicing therapeutic exercises that enhance motor coordination, sensory integration, and upper limb functionality. Finally, students will develop an individualized therapy plan based on a mock pediatric case.
Instructions to Students (First 30 Minutes): Teacher will introduce common Occupational Therapy (OT) goals and demonstrate pediatric therapeutic interventions. Students should observe carefully, noting key techniques, positioning, and tools used. Safety practices and communication cues will be highlighted. Prepare to engage in physical practice and group analysis for planning therapy solutions.
Students' Activities
Step – 01 (60 Minutes): Students will practice occupational therapy techniques using models or peers. Exercises will focus on feeding, dressing, handwriting, upper limb strength, and coordination. Special attention will be given to sensory-motor integration techniques such as tactile stimulation and proprioceptive inputs to promote skill acquisition.
Step – 02 (60 Minutes): Working in groups, students will review a simulated pediatric case and formulate a customized OT intervention plan. The plan will include daily living skill goals, therapy routines, assistive devices, and parent-guided activities. Each group will present their plan and explain its functional impact.
Assessment (Final 30 Minutes): Teacher will assess students using a checklist for skill application, planning accuracy, and communication. An OSPE may be conducted to evaluate practical performance. Students will submit a reflective report describing their learning process and observed improvements. Peer feedback will be collected to encourage collaborative reflection.

Experiential-Learning 13.4 : Speech and Language Therapy Strategies for Pediatric Communication Disorders

Total Duration of the Activities: 3 Hours
This experiential workshop provides students with direct exposure to pediatric speech and language therapy methods. The session begins with a demonstration of evidence-based interventions for managing articulation issues, apraxia, stuttering, and non-verbal communication challenges. Students will then apply these techniques in simulated pediatric scenarios, practicing articulation drills, breathing control, and assisted communication strategies. Special focus is placed on therapy approaches for children with autism and social communication disorders. Students will engage in role plays simulating therapist-child interaction and reflect on technique effectiveness, empathy, and communication clarity.
Instructions to Students (First 20 Minutes): Teacher will demonstrate speech and language therapy methods including articulation correction, stuttering management, and non-verbal aids. Students should observe technique execution and therapeutic tools. Prepare to apply these methods in simulations. Engage actively in role-play exercises to develop therapeutic empathy and communication strategies.
Students' Activities
Step – 01 (70 Minutes): Students will practice speech therapy interventions on simulated pediatric cases. Exercises will focus on articulation, phoneme clarity, breath control, and comprehension enhancement. Faculty will provide real-time guidance as students learn to tailor techniques to diverse communication deficits.
Step – 02 (70 Minutes): Engaging in structured peer role-play, students will simulate speech therapy sessions with children affected by autism or speech disorders. Focus will be placed on adaptive communication strategies, non-verbal cues, and therapeutic responsiveness. Observations will be recorded and technique modifications discussed.
Assessment (Final 20 Minutes):Teacher will conduct a practical viva and assess students using a checklist evaluating technique accuracy, clarity of communication, and responsiveness to child needs. Peer feedback will supplement the evaluation, helping students reflect on their own and others' clinical performance.

Experiential-Learning 13.5 : Field-Based Integration of *Siddha* and Modern Pediatric Orthopedic Care

Total Duration of the Activities: 3 Hours
This experiential session provides students with firsthand exposure to pediatric orthopedic rehabilitation through a structured field visit. Students will observe *therapies* for conditions such as congenital deformities, fractures, and scoliosis, followed by a case-based learning session led by faculty. *Siddha treatments* like *Thokkanam, Kattu,* and herbal compresses will be demonstrated, and their integration with physiotherapy and orthotic interventions will be discussed. Students will role-play the implementation of treatment strategies and explore rehabilitation technologies, research themes, and *Siddha* entrepreneurship in orthopedic pediatrics.
Instructions to Students (First 30 Minutes): Teacher will brief students on the field visit objectives, highlighting key rehabilitation practices to observe. Students must document therapeutic procedures and assistive strategies used. During the case session, students are expected to identify orthopedic conditions, understand diagnosis and management plans, and explore *Siddha integration.*
Students' Activities (Next 120 mins)
Step – 01 (60 Minutes): Students will be grouped and assigned pediatric orthopedic case scenarios. They will analyze clinical features, identify diagnostic tools, and develop treatment plans combining *Siddha (e.g., Kattu, Thokkanam)* and modern physiotherapy approaches. Emphasis will be placed on function restoration and mobility.
Step – 02 (60 Minutes): Groups will demonstrate therapeutic applications via role play, including *Siddha* and modern methods. Discussion will follow on rehabilitation goals, assistive devices, and innovations in orthopedic recovery. Students will also explore entrepreneurial opportunities such as *Siddha*-based splints, herbal formulations,

or startup models in pediatric rehab care.
Assessment (Final 30 Minutes):Teacher will assess the quality of case-based presentations and *therapy* demonstrations using a structured checklist. Emphasis will be on integration, creativity, and clinical relevance. Students will complete a self-assessment reflecting on skill acquisition, innovation potential, and future research interests in Siddha orthopedic rehabilitation.

Experiential-Learning 13.6 : Integrative Approaches to Pediatric Sensory Impairments

Total Duration of the Activities: 3 Hours
This experiential learning activity introduces students to the diagnosis and integrative management of pediatric sensory impairments, including hearing and vision disorders. Through demonstration and hands-on practice, students will explore diagnostic methods such as tuning fork tests, vision screening, and audiometry. *Siddha* interventions like *Nasiyam* (nasal drops), *Anjanam* (herbal eye applications), and *Thylam* (medicated oils) will be practiced and integrated with conventional aids like hearing devices and lenses. Teams will analyze case scenarios, develop holistic management strategies, and reflect on innovations and research in pediatric sensory rehabilitation.
Instructions to Students (First 30 Minutes): Teacher will explain the session goals, introduce common sensory impairments in children, and demonstrate basic diagnostic tools and tests. Students will be guided on how to evaluate cases, propose treatment plans, and integrate *Siddha therapies* with conventional rehabilitation strategies.
Students' Activities (Next 120 mins)
Step – 01 (60 Minutes): Students will analyze assigned pediatric cases involving sensory deficits (e.g., congenital deafness, otitis media-related hearing loss, refractive errors). They will identify symptoms, interpret diagnostic results, and propose integrative care plans that include both *Siddha* and modern medical therapies.
Step – 02 (60 Minutes): Students will practice *Siddha* therapeutic techniques on models or simulated peers—applying *Nasiyam, Anjanam, and Thylam.* They will also simulate caregiver counseling sessions on the use of hearing aids, eye care regimens, and *Siddha applications*. Group discussions will focus on rehabilitation goals and innovation.
Assessment (Final 30 Minutes): Teacher will assess each group's integrated care plan and *therapy* demonstration using a structured checklist. Evaluation will focus on clinical reasoning, therapy accuracy, and creativity in combining *Siddha* and modern aids. Peer feedback will support collaborative learning and self-reflection.

Experiential-Learning 13.7 : *Siddha*-Based Neuro-Rehabilitation for Pediatric Motor Disorders

Total Duration of the Activities: 4 Hours
This experiential session offers hands-on learning in *Siddha* neuro-rehabilitation therapies for children with cerebral palsy (CP), hemiparesis, hemiplegia, and quadriplegia. Students will observe and practice *Thokkanam* (therapeutic massage), *Varmam* (vital point therapy), and *herbal compress techniques* to support motor function and prevent musculoskeletal complications. Simulated case scenarios will guide students in planning integrative rehabilitation strategies that combine *Siddha* and modern therapies, assistive technologies, and nutritional care. The session concludes with discussions on innovation, research potential, and entrepreneurship in *Siddha* pediatric neuro-rehabilitation.
Instructions to Students (First 30 Minutes): Teacher will present clinical insights into CP and related neuromotor disorders, explaining symptoms, diagnostic features, and therapeutic goals. Simulated patient profiles will be shared. Guidelines will be given on safe application of *Thokkanam, Varmam, and herbal compresses*, alongside assistive

care principles and rehabilitation ethics.
Students' Activities (Next 180 mins)
Step – 01 (60 Minutes): Students will practice *Thokkanam, Varmam* stimulation, and *herbal compress applications* on models or peers, focusing on tone regulation, spasticity control, and joint mobility. Faculty will monitor application accuracy and guide postural alignment and safety.
Step – 02 (60 Minutes):Teams will analyze a simulated case and design an integrative rehabilitation plan. The plan will include *Siddha therapies*, physiotherapy exercises, nutrition interventions, and use of assistive devices. Focus will be on daily functioning, developmental goals, and prevention of deformities.
Step – 03 (60 Minutes): Students will participate in a group discussion exploring modern advancements such as wearable tech and AI-supported rehab tools. Research trends and entrepreneurial ideas in *Siddha* neuro-rehab will be brainstormed. Each group will present a summary of findings and propose a care or innovation model.
Assessment (Final 30 Minutes): Teacher will assess students' therapy demonstration and rehabilitation plans using a structured checklist. Group presentations will be evaluated for innovation and feasibility. Peer and self-assessment will encourage reflection on teamwork, application skills, and integration of *Siddha* and modern approaches.

Experiential-Learning 13.8 : Integrative Management of Pediatric Epilepsy and Seizure Disorders

Total Duration of the Activities: 4 Hours
This experiential session trains students to evaluate and manage epilepsy and seizure disorders in pediatric patients using integrative methods. Students will analyze simulated clinical scenarios, interpret Electroencephalogram (EEG) and other diagnostics, and propose personalized treatment strategies combining *Siddha therapies* (herbal formulations, *Varmam*) with conventional antiepileptic medications. Emphasis is placed on balancing seizure control with quality of life, diet, and lifestyle modifications. The session includes seizure emergency simulations, discussion on neurotherapeutic innovations, and exploration of entrepreneurial models in *Siddha*-based pediatric care.
Instructions to Students (First 20 Minutes): Teacher will provide an overview of pediatric epilepsy: etiology, classification of seizure types, and diagnostic methods including Electroencephalogram (EEG) interpretation. Students will be assigned case scenarios and oriented on integrating *Siddha* and modern treatments. Expected learning outcomes and emergency response roles will be explained.
Students' Activities
Step – 01 (70 Minutes)Students will analyze their assigned pediatric epilepsy case, documenting clinical features, seizure classification, and triggers. They will interpret diagnostic tools such as Electroencephalogram (EEG) and begin preparing an initial treatment outline.
Step – 02 (70 Minutes): Each group will formulate a detailed, integrative care plan combining *Siddha* internal therapies (herbal formulations), *external therapies (Varmam),* modern anticonvulsants, and lifestyle and dietary guidance. Emphasis will be placed on seizure prevention, parental education, and holistic well-being.
Step – 03 (60 Minutes): Groups will simulate seizure emergency responses and discuss innovations such as wearable seizure monitors and real-time diagnostic tools. Entrepreneurial ideas and research opportunities in *Siddha* neurotherapeutics will be shared. Teams will prepare and present a summary of their findings.
Assessment (Final 20 Minutes): Teacher will assess diagnostic interpretation, therapeutic planning, and emergency simulation through a checklist. Students will be evaluated on clinical accuracy, creativity, and communication. Peer and self-assessments will help reflect on teamwork, strategy integration, and knowledge application.

Modular Assessment

Assessment method	Hour
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 6C. Section A - 25 Marks . This assessment evaluates the student's competency in understanding and applying pediatric behavioral therapies, special education, multidisciplinary rehabilitation, and therapeutic interventions. Students will demonstrate scenario-based application of behavioral therapy, rehabilitation planning, and support systems for children with developmental, orthopedic, neurological, and communication challenges using integrated pediatric care models. Instructions to Students : Students will complete two parts: (A) a practical task (e.g., planning a behavioral intervention or rehabilitation model for a given case scenario), and (B) a viva voce to explain therapy rationale, interdisciplinary integration, and caregiver strategies. Practical should reflect both understanding and application. Reference material is not allowed during viva. Instructions to Teachers : Provide each student a clinical or behavioral scenario involving a pediatric developmental or orthopedic condition. Evaluate their response in designing a therapeutic plan (behavioral, PT, OT, or SLT), integration with family support, and justification during viva. Use structured checklists to assess conceptual clarity, therapeutic alignment, and interdisciplinary comprehension. Mark Distribution : The total 25 marks are divided as follows: Therapeutic Plan Design incorporating behavioral, physical, occupational, and speech therapies carries 8 marks. Multidisciplinary Integration and Caregiver Strategy is allotted 6 marks. Scenario-Based Problem Solving carries 5 marks, while Viva Explanation and Preventive Planning carry 3 marks each. & Section – B.This 25-marks. This assessment evaluates students' understanding of the diagnosis and management of pediatric neurological, orthopedic, and sensory impairments including speech disorders, spina bifida, hydrocephalus, and cerebral palsy. Students must apply clinical reasoning, propose *Siddha*-integrated management plans, prioritize interventions, and explain rehabilitation strategies. Practical relevance and communication clarity are emphasized. Instructions to Students : Students will receive a structured clinical scenario covering a child with one of the specified disorders. Based on the case, prepare a comprehensive management plan integrating Siddha and conventional treatments. Include diagnostic methods, therapy strategies, preventive advice, and caregiver support. Present and justify their plan in a brief viva session. Instructions to Teachers : Present clinical vignettes involving speech, neurodevelopmental, or musculoskeletal conditions. Assess students on accurate diagnosis, individualized therapy planning, integration of Siddha modalities (e.g., External, Internal and Food advaices), and patient-centered management. Use observation checklists for therapeutic appropriateness, interdisciplinary application, and communication. Encourage a balanced approach to conventional and Siddha principles. Mark Distribution : Total marks = 25. Diagnosis and Condition Understanding carry 6 marks. Integrated Management Plan (Siddha + Scientific) carries 8 marks. Therapy Justification and Preventive Strategy are allotted 5 marks. Communication with Caregiver and Rehabilitation Strategy carry 3 marks, and Viva Performance and Clinical Logic carry 3 marks.	4

(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

Module 14 : ??????? ???? ??????????????? ???????????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Orunginaintha Maruthuva Muraigal (Integrated Management for Special Children)

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

Discuss the clinical features and interventions for neurodevelopmental disorders.
Describe integrated Siddha and conventional care for special children.
Identify management strategies for behavioral and emotional pediatric disorders.
Apply Siddha therapies in pediatric sensory, cognitive, and motor impairments.
Discuss infrastructure, staffing, and planning for Siddha pediatric centers.
Evaluate research and entrepreneurship opportunities in pediatric Siddha psychiatry.

M 14 Unit 1 ??????????? ???????????? ????????? ???????? ??????? ?????? ????????? – Sirappunilai Kuzhanthaikalil Narambiyal Valarchi matrum Nadaththai Kolarugal - Neurodevelopmental and Behavioral Disorders in Special Children

14.1.1 Sensory Processing and Feeding Impairments – Sensory modulation disorders, food aversion, dysphagia, oral-motor dysfunction, sensory integration therapy, specialized feeding interventions.
14.1.2 Autism Spectrum Disorder (ASD) – Social interaction deficits, repetitive behavior, sensory hypersensitivity, early diagnosis, behavioral therapy, parental support, intervention programs.
14.1.3 Global Developmental Delay – Delayed motor, language, and cognitive milestones, early screening, multidisciplinary assessment, rehabilitation planning, developmental support strategies.
14.1.4 Attention Deficit Hyperactivity Disorder (ADHD) – Inattention, hyperactivity, impulsivity, diagnostic criteria, behavioral modification, pharmacologic treatment, focus and self-regulation training.

14.1.5 Learning Disabilities – Dyslexia, dysgraphia, dyscalculia, academic difficulty, educational assessment, remedial instruction, adaptive teaching methods, coping skill development.

References: 132

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Discuss sensory processing disorders, feeding impairments, and strategies for managing conditions like aversions, dysphagia, and promoting healthy eating habits through specialized interventions.	1	Lecture	CC	Knows-how	L&PPT ,L&GD,LS
CO1,CO4,CO6	Design *Siddha*-based protocol for managing Autism Spectrum Disorder in children.	2	Practical Training 14.1	CS	Shows-how	PrBL,PAL,PBL,CBL
CO3,CO5	Design holistic care plans for learning disabilities using *Siddha* support	3	Experiential-Learning 14.1	PSY-GUD	Does	RP,CBL, SIM
CO1,CO2,CO3	Describe Autism Spectrum Disorder (ASD) features, diagnosis, early intervention, and family-centered management strategies in pediatric care.	1	Lecture	CC	Knows-how	L&GD
CO1,CO4,CO6	Formulate a *Siddha* protocol to manage Attention Deficit Hyperactivity Disorder (ADHD) using therapeutic strategies.	2	Practical Training 14.2	CS	Shows-how	PBL,PL,PrBL,CBL, D-BED
CO1,CO2,CO3	Analyze Global Developmental Delay (GDD) and Attention-Deficit/Hyperactivity Disorder (ADHD), learning disabilities with early detection and multidisciplinary educational intervention strategies.	1	Lecture	CAN	Knows-how	L&GD
CO3,CO5,CO6	Adapt multi-sensory and supportive tools for children with learning disabilities.	2	Practical Training 14.3	PSY-ADT	Shows-how	GBL,ML, EDU,D,SIM

M 14 Unit 2 ??????????? ???????????? ?????????? ??????? ?????? ???????? ???????????? - Sirappunilai Kuzhanthaikalil Arivaatral matrum

Nadaththai Savalkalai Nirvagiththal -Management of Cognitive and Behavioral Challenges in Special Children

14.2.1 Intellectual Disability – Cognitive impairment, delayed adaptive functioning, diagnostic evaluation, Siddha and conventional therapies, integrative care, skills training, research potential.
14.2.2 Down Syndrome – Trisomy 21 etiology, dysmorphic features, developmental delays, Siddha internal and external management, rehabilitation integration, modern support systems.
14.2.3 Oppositional Defiant Disorder (ODD) and Conduct Disorder – Aggressive behavior, defiance patterns, psychological assessment, behavioral therapy, Siddha interventions, integrative behavior modification.
14.2.4 Nonverbal Learning Disorder and Specific Learning Disabilities – Spatial and motor dysfunction, reading and writing difficulty, Siddha-conventional synergy, academic support strategies, therapy models.
14.2.5 Anxiety Disorders and Depression – Emotional dysregulation, fear and withdrawal, psychosocial interventions, Siddha formulations, integrated mental health care, therapeutic skill development.

References: 26,122,132

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO6	Develop behavior care plans using Siddha and conventional strategies	3	Experiential-Learning 14.2	PSY-GUD	Does	RP,CBL,SIM
CO2,CO3,CO5	Describe diagnosis, causes, and integrated management of intellectual disabilities, Down syndrome, and mood disorders.	1	Lecture	CAN	Knows-how	L&GD
CO1,CO4,CO7	Design integrative care tools for managing pediatric intellectual disabilities.	2	Practical Training 14.4	PSY-ORG	Shows-how	PrBL,PBL,D,C_L
CO4,CO6,CO7	Apply integrated *Siddha*-conventional care for pediatric neurobehavioral issues	3	Experiential-Learning 14.3	PSY-GUD	Does	RP,DIS,PAL,CBL
CO3,CO5,CO6	Describe Oppositional Defiant Disorder (ODD), learning disabilities, and anxiety disorders with diagnostics, therapies, and innovation opportunities.	1	Lecture	CC	Knows-how	DIS

CO1,CO4,CO6	Develop integrated behavioral plans for Oppositional Defiant Disorder (ODD) and Conduct Disorder in children.	2	Practical Training 14.5	PSY-ORG	Shows-how	C_L,PBL, SIM,RP,PrBL

M 14 Unit 3 ??????????? ?????????????? ??????? ????? ?? ??????? ????????? - Sirappunilai Kuzhanthaikalukkana Virivana Siddha Nala Maiyaththai Niruvuthal - Establishing a Comprehensive Siddha wellness center for Special Children

14.3.1 Infrastructure and Facility Planning – Child-friendly design, therapy room setup, OT/PT spaces, speech therapy units, special education zones, accessibility standards.
14.3.2 Integrating Siddha Management (Internal and External) – Internal medicine protocols, external therapies, *Varmam, Thokkanam, Kizhi* etc., applications, holistic pediatric Siddha integration.
14.3.3 Staffing and Specialized Therapies – Multidisciplinary recruitment, *Siddha* physicians, speech therapists, occupational and physiotherapists, therapy coordination, integrative service planning.
14.3.4 Business Planning and Financial Management – Budget planning, operational funding, revenue models, financial sustainability, pediatric Siddha hospital entrepreneurship.
14.3.5 Legal Compliance and Accreditation – Healthcare licensing, Siddha hospital regulations, pediatric practice norms, NABH accreditation, statutory compliance, institutional governance.

References: 138,139,140,141

3A	3B	3C	3D	3E	3F	3G
CO4,CO6,CO7	Create a functional *Siddha* wellness model for pediatric special care	3	Experiential-Learning 14.4	PSY-ORG	Does	BS,PrBL, CBL,PER,TBL
CO6,CO7,CO8	Design a sustainable business plan for *Siddha* pediatric wellness care	3	Experiential-Learning 14.5	CS	Does	TPW,FV, BS,PAL, CBL
CO6,CO7,CO8	Apply legal and accreditation standards to *Siddha* pediatric wellness services	4	Experiential-Learning 14.6	CAP	Does	CBL,TPW,RLE, W,TBL

CO1,CO3,CO5	Discuss the key infrastructure requirements for a Siddha hospital, including therapy rooms, specialized spaces, and child-friendly environments to support pediatric care	1	Lecture	CC	Knows-how	DIS,D-M,D
CO2,CO3,CO6	Discuss Siddha internal and external therapies for holistic management of children with special needs.	1	Lecture	CC	Knows-how	CBL,DIS,L&GD
CO6,CO7,CO8	Describe business, legal, and accreditation aspects in managing Siddha pediatric hospitals for quality care.	1	Lecture	CC	Know	DIS,L&GD
CO3,CO6,CO7	Design a functional and integrative *Siddha* pediatric hospital layout.	2	Practical Training 14.6	PSY-ORG	Shows-how	PrBL,SIM,TBL,PAL
CO3,CO6,CO8	Simulate team-based care planning and recruitment in *Siddha* pediatric services.	2	Practical Training 14.7	PSY-SET	Shows-how	DIS,TBL,SIM,RP
CO4,CO6,CO8	Simulate licensing and accreditation planning for a *Siddha* pediatric hospital.	2	Practical Training 14.8	PSY-SET	Shows-how	SIM,PBL,RP,D,DIS

M 14 Unit 4 ??????????? ???????????????? ??????? ??????? ???? ??????? ??????????? - Sirappunilai Kuzhanthaikalin Ulaviyal matrum Marabu Noikalai Parikariththal Management of Complex Psychiatric and Genetic Disorders in Special Children

14.4.1 Obsessive-Compulsive Disorder (OCD) – Repetitive behaviors, obsessive thoughts, behavioral therapy, Siddha internal and external treatments, integrated care, research and teaching skills.
14.4.2 Post-Traumatic Stress Disorder (PTSD) – Emotional trauma, hyperarousal, diagnostic criteria, psychotherapy, Siddha oil applications, soft skills, entrepreneurial insights.
14.4.3 Bipolar Disorder and Schizophrenia – Mood instability, psychotic symptoms, conventional medication, Siddha management, integrative neuropsychiatry, academic and research training.
14.4.4 Fragile X Syndrome and Rett Syndrome – Genetic abnormalities, developmental regression, supportive interventions, diet and *Varmam*, Siddha protocols, skill-building in genetic care.
14.4.5 Tourette Syndrome and Developmental Coordination Disorder (DCD) – Motor tics, coordination impairment, behavioral therapy, Siddha *Varmam* application, therapeutic innovation, student research development.

References: 26,132

3A	3B	3C	3D	3E	3F	3G
CO4,CO6,CO7	Design and communicate integrative care for pediatric Obsessive-Compulsive Disorder (OCD) management	3	Experiential-Learning 14.7	PSY-GUD	Does	TBL,RP,SIM,PL,CBL
CO4,CO6,CO7	Develop and communicate integrative care plans for neuropsychiatric cases	4	Experiential-Learning 14.8	CAN	Does	RLE,DSN,TBL,RP,CBL
CO2,CO3,CO6	Describe etiology, symptoms, and integrated care for pediatric Obsessive-Compulsive Disorder (OCD), Post-Traumatic Stress Disorder (PTSD), bipolar disorder and schizophrenia.	1	Lecture	CC	Know	BL,L&GD
CO2,CO3,CO6	Discuss management of Fragile X, Rett, Tourette, Developmental Coordination Disorder (DCD) with conventional and innovation-based approaches.	1	Lecture	CAN	Know	L&GD,BL,LS
CO1,CO3,CO6	Evaluate and integrate *Siddha* and modern approaches for pediatric Obsessive-Compulsive Disorder (OCD).	2	Practical Training 14.9	CE	Shows-how	TBL,C_L,PAL,DIS,PER
CO1,CO3,CO6	Develop integrative and innovative care strategies for pediatric neuropsychiatric conditions.	2	Practical Training 14.10	CS	Shows-how	DIS,TBL,PER,C_L

Practical Training Activity

Practical Training 14.1 : Preparation of *Siddha* Clinical Management Protocol for Autism Spectrum Disorder (ASD)

Total Duration of the Activities: 2 Hours

This practical session introduces students to the clinical signs and symptoms of Autism Spectrum Disorder (ASD) in pediatric practice. Emphasis is placed on integrating modern clinical understanding with *Siddha* nosology, interpreting conditions associated with vitiated *Vatham*, and designing a comprehensive clinical management plan. Students will identify suitable *Siddha* internal medicines, external therapies like *Thokkanam* and *Nasiyam*, recommend *Paatiyam* (dietary regimens), and draft behavioral

and parental support strategies. The activity concludes with a collaborative protocol presentation and structured faculty feedback.
Instructions to Students (First 20 Minutes): Teacher will guide students to review ASD's behavioral and physiological features. Students will analyze *Siddha* texts for references to *Vathakkurainoi* and neurodevelopmental disturbances. Groups will identify *Siddha* medicines, *external therapies,* and lifestyle strategies that align with calming the nervous system and improving sensory and communicative functions.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will work in teams to correlate core ASD symptoms with *Siddha* pathological concepts. They will list appropriate *Siddha* internal formulations, *Varmam points,* and external therapies that may enhance neurological stability and social engagement.
Step – 02 (Next 40 Minutes): Students will develop a structured *Siddha* clinical management protocol, including diagnostic parameters, therapeutic regimen, dietary advice, lifestyle modifications, and parental counseling. Each group will present their draft protocol to peers for feedback and discussion.
Assessment Methods (Final 20 Minutes): Teacher will assess each group's protocol for clarity, *Siddha* textual alignment, and clinical relevance using a checklist. A brief practical viva will test understanding of *Vatham* derangements, therapy choices, and individualized pediatric care planning. Feedback will be provided to enhance the feasibility and integrative strength of the presented protocols.

Practical Training 14.2 : *Siddha* Clinical Management Protocol Preparation for Attention Deficit Hyperactivity Disorder (ADHD)

Total Duration of the Activities: 2 Hours
This session introduces the clinical and Siddha perspectives of Attention Deficit Hyperactivity Disorder (ADHD) in children. Students will study symptoms like inattention, impulsivity, and hyperactivity, and relate them to *vatha* vitiation and disturbed *Kosham* functions in *Siddha literature.* Drawing from classical texts, students will identify suitable *internal medicines, external therapies, Pathiyam,* and behavioral guidance. They will design and present a structured *Siddha* clinical protocol suitable for pediatric use.
Instructions to Students (First 20 Minutes): Teacher will introduce ADHD symptoms and diagnostic criteria. Students will then examine *Siddha* correlations such as *vatha* derangement and mental restlessness. Using classical *Siddha* references, each team will gather relevant *formulations, therapies,* and lifestyle advice for constructing a complete treatment protocol for ADHD.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will analyze clinical case data or simulated child profiles with ADHD. They will identify links to *Siddha* pathology *(e.g., deranged Vatham, disturbed Udana Vayu),* shortlist internal drugs, and note external therapeutic procedures such as head massage, *thylam* application, and calming *Varmam points.*
Step – 02 (Next 40 Minutes): Each group will create a detailed *Siddha* management protocol including diagnosis, *internal and external therapies, Paatiyam,* behavior management, and parent education. Students will prepare a visual treatment model or flowchart to share with peers and faculty.
Assessment Methods (Final 20 Minutes): Teacher will evaluate protocols and visuals for accuracy, clinical relevance, and classical alignment using a structured checklist. A short viva will assess understanding of ADHD from both *Siddha* and modern views. Peer feedback and discussion will focus on clarity, applicability, and strength of the integrative management plan.

Practical Training 14.3 : Applied Learning Strategies for Managing Pediatric Learning Disabilities

Total Duration of the Activities: 2 Hours

This practical session provides experiential exposure to learning disabilities such as dyslexia, dysgraphia, and dyscalculia. Through the use of mobile apps, educational games, and therapeutic demonstrations, students will simulate the learning challenges faced by affected children. They will engage in speech and cognitive therapy activities, and develop creative tools like flashcards, puzzles, or interactive charts that enhance literacy, numeracy, memory, and cognitive engagement. The session fosters practical understanding and promotes innovation in pediatric learning support.

Instructions to Students (First 20 Minutes): Students will be introduced to clinical and behavioral features of common learning disabilities. Using mobile platforms, simulated games, and role-play exercises, they will experience the learning barriers encountered in dyslexia and dyscalculia. Students will observe brief demonstrations in speech, memory, and fine motor skill enhancement, and prepare to co-create assistive learning tools.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will engage with mobile-based learning disability simulators and puzzle-solving tasks designed to mimic dyslexia and dyscalculia. They will document key challenges in reading, writing, or number processing and share observations within their group.

Step – 02 (Next 40 Minutes): Students will observe or participate in therapy demonstrations (e.g., visual-auditory training, letter tracing, rhythm therapy). They will then co-create a practical learning support tool (e.g., game, flashcard set, mobile activity, or learning chart) and present it, explaining its application and therapeutic rationale.

Assessment Methods (Final 20 Minutes): Students will be assessed on their participation in simulations and tool development using a structured checklist. A peer assessment will review creativity and relevance of the support tools. A short quiz will test basic understanding of learning disabilities and therapy indications. Emphasis will be on practical adaptability and child-friendly innovation.

Practical Training 14.4 : Integrated Management Strategies for Pediatric Intellectual Disability

Total Duration of the Activities: 2 Hours

This session offers an integrative approach to understanding and managing pediatric intellectual disability, combining modern therapies (speech, occupational, behavioral) with *Siddha*-based interventions *(yoga, varmam, herbal formulations)*. Students will engage in simulated patient scenarios, observe therapeutic demonstrations, and work collaboratively to develop entrepreneurial or clinical models for care. Emphasis is placed on identifying gaps, fostering innovation, and exploring research and business opportunities in disability services.

Instructions to Students (First 20 Minutes): Observe simulation cases reflecting varying degrees of intellectual disability. Take note of impairments in communication, social engagement, and daily living activities. Review modern therapeutic strategies alongside *Siddha* methods like *varmam* stimulation and yoga-based calming techniques. Begin a group discussion on unmet needs in current systems and prepare to conceptualize an innovative care or teaching model.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Participate in simulated case scenarios demonstrating challenges faced by children with intellectual disabilities. Observe hands-on demonstrations of *Siddha* interventions *(e.g., varmam, yoga)* and modern therapies (e.g., behavior modification, structured education). Document the benefits, limitations, and areas for integrative enhancement.

Step – 02 (Next 40 Minutes): Develop a concept model for an integrative pediatric therapy center, supportive therapy kit, or visual communication/teaching aid. Define the

purpose, intended users, and key care components. Present your proposal to the group, focusing on innovation, therapeutic value, and research or entrepreneurial potential.
Assessment Methods (Final 20 Minutes): Students will be assessed on the originality, clinical feasibility, and targeted impact of their proposed models or tools. Peer review and role play observation will capture team contribution and understanding. A short scenario-based Q&A will evaluate integrative reasoning, *Siddha*-modern synergy, and innovation capacity in intellectual disability management.

Practical Training 14.5 : Integrated Behavioral Management of Oppositional Defiant and Conduct Disorders

Total Duration of the Activities: 2 Hours
This practical session introduces students to the clinical features and management strategies for Oppositional Defiant Disorder (ODD) and Conduct Disorder in children. Students will analyze behavioral case scenarios, observe and participate in simulated therapy sessions, and explore *Siddha*-based calming interventions including *Varmam, Paatiyam,* and herbal support. Students will design innovative tools and community-based kits to address behavioral dysregulation and promote interdisciplinary management.
Instructions to Students (First 20 Minutes): Teacher will explain diagnostic criteria and key behavioral symptoms of ODD and Conduct Disorder. Teacher will guide students through simulated behavioral scenarios and *Siddha*-based interventions such as *Varmam* calming techniques and dietary pacification. Students will participate in group discussions to identify therapeutic gaps and prepare to create interdisciplinary solutions.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will engage in role-play exercises demonstrating behavioral patterns seen in ODD and Conduct Disorder. Students will practice behavioral strategies including reinforcement techniques, emotional regulation approaches, and structured counseling dialogues. Students will observe Siddha methods such as *Varmam* stimulation and calming *Thylam* applications.

Step – 02 (Next 40 Minutes): Students will work in teams to develop a behavioral management toolkit or teaching model for caregivers, *therapists,* or schools. Students will include behavior charts, structured intervention steps, and family education modules. Students will present their model and suggest field-testing plans or research questions for community implementation.
Assessment Methods (Final 20 Minutes): Teacher will assess the tool kit or model created by students for creativity, therapeutic relevance, and feasibility. Teacher will conduct a short scenario-based viva to evaluate student understanding of behavioral and *Siddha*-based strategies. Peer assessment will be used to reflect collaboration and practical thinking in integrative care planning.

Practical Training 14.6 : Designing Child-Friendly *Siddha* Pediatric Hospital Infrastructure

Total Duration of the Activities: 2 Hours
This practical session enables students to conceptualize and plan the layout of an ideal *Siddha* pediatric hospital. Students will work in teams to design infrastructure including therapy rooms, observation units, Occupational Therapy/Physical Therapy (OT/PT) areas, speech therapy cabins, and inclusive education zones. Designs must reflect accessibility, child safety, and integrative *Siddha* care principles. Each group will present visual plans or models, followed by peer feedback and teacher evaluation

focused on innovation, functionality, and therapeutic alignment.
Instructions to Students (First 20 Minutes): Teacher will brief students on the components of a *Siddha* pediatric hospital and outline planning considerations such as accessibility, child safety, space utilization, and integrative therapy. Students will be grouped and instructed to use posters, cardboard models, or digital tools to design layouts that include zones for treatment, education, rehabilitation, and family engagement.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will plan and sketch their hospital layout. Students will include key spaces such as *Siddha* therapy rooms, inpatient/outpatient care zones, herbal pharmacy, PT/OT rooms, speech therapy cabins, sensory integration areas, and healing gardens. Students will choose their medium: chart paper, cardboard, or digital design.
Step – 02 (Next 40 Minutes): Students will finalize and present their hospital models or layouts. Students will explain the rationale for their design choices, highlighting how each space supports holistic pediatric *Siddha* care. Students will demonstrate attention to workflow, accessibility, child-centered design, and integrative therapeutic approaches. Peer teams will provide constructive feedback.
Assessment Methods (Final 20 Minutes): Teacher will assess each group's work for originality, clinical and architectural relevance, clarity of presentation, and application of *Siddha* pediatric principles. Peer groups will evaluate teamwork, creativity, and practical planning. A short viva will test student understanding of layout logic and child-focused care integration.

Practical Training 14.7 : Simulated Multidisciplinary Recruitment and Care Planning in *Siddha* Pediatric Setup

Total Duration of the Activities: 2 Hours
This practical session simulates the real-world functioning of a *Siddha* pediatric center by assigning students to multidisciplinary roles such as *Siddha* pediatrician, speech therapist, Occupational Therapy/Physical Therapy (OT/PT) expert, Human Resources (HR) officer, and administrator. Students will conduct mock recruitment interviews, clarify role responsibilities, and create an integrated care plan for a pediatric case. Emphasis is on interdisciplinary collaboration, communication, and efficient service planning for holistic child care delivery.
Instructions to Students (First 20 Minutes): Teacher will guide students to form teams and assign roles. Teacher will explain responsibilities of each role and set the context of the simulation: staffing a new *Siddha* pediatric center. Students will review therapeutic scopes and prepare for interviews and care planning tasks. Teacher will supervise initial team setup and role briefings.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will conduct mock recruitment interviews for each role within the team. The HR officer will ask about role expectations, collaboration strategies, and documentation practices. Each role (e.g., *Siddha* pediatrician, speech therapist) will explain how their services integrate into the holistic care of the child. Teams will discuss therapy schedules, space requirements, and interdisciplinary coordination.
Step – 02 (Next 40 Minutes): Students will prepare and present a collaborative care plan for a pediatric case (e.g., child with delayed milestones or autism). Each team member will describe their intervention contribution and how collaboration improves the child's outcome. Students will reflect on role interdependence and propose effective communication strategies within the team.
Assessment Methods (Final 20 Minutes):Teacher will assess the simulation based on role clarity, team communication, and integration of care strategies using a checklist.

Peer feedback will focus on professional conduct, collaboration quality, and presentation effectiveness. A short viva will test understanding of interdisciplinary coordination and practical staffing requirements in a *Siddha* pediatric hospital.

Practical Training 14.8 : Simulating Licensing and NABH Accreditation Procedures for a *Siddha* Pediatric Hospital

Total Duration of the Activities: 2 Hours

This practical session trains students in legal compliance and accreditation procedures by simulating the complete licensing and National Accreditation Board for Hospitals and Healthcare Providers (NABH) accreditation process for a newly constructed *Siddha* Pediatric Hospital. Students will prepare mock Standard Operating Procedure (SOPs), simulate inspection visits, and present regulatory documentation such as biomedical waste protocols, *Siddha* drug licensing, fire safety measures, and staff policies. Each team will present their documents, simulate walkthroughs, and respond to mock assessor questions.

Instructions to Students (First 20 Minutes): Teacher will divide students into 2–3 hospital teams and assign roles: hospital administrator, *Siddha* consultant, quality officer, and legal officer. Teacher will explain regulatory requirements and introduce NABH and other licensing standards. Students will begin preparing hospital protocols, floor plans, documentation registers, and mock applications for licensing and accreditation.

Step – 01 (First 40 Minutes): Students will prepare dummy documentation and mock applications required for initiating a *Siddha* Pediatric Hospital, including *Siddha* Medical Council registration, Bio-Medical Waste Handling authorization, Drug License for in-house preparation, and hospital registration certificates. In addition, students will draft Standard Operating Procedures (SOPs) aligned with NABH guidelines, including policies on infection control, patient consent, fire and safety preparedness, and staff deployment plans. These documents will form the basis for their simulated hospital accreditation and licensing presentation.

Step – 02 (Next 40 Minutes): Students will simulate an assessor inspection visit, presenting their documents and layouts. Teams will role-play interactions with assessors, justifying policies and protocols. Each group will walk through their safety practices, *Siddha* drug handling, patient flow, and administrative systems, and answer queries on readiness and compliance.

Assessment Methods (Final 20 Minutes): Teacher will assess each team's simulation based on accuracy of documentation, quality of presentation, and role enactment during assessor queries. Peer assessors will provide structured feedback. Marks will be awarded for team coordination, clarity of explanations, knowledge of NABH and licensing standards, and ability to simulate a real-world hospital compliance setup.

Practical Training 14.9 : Multisystem Therapeutic Planning and Debate on Pediatric Obsessive-Compulsive Disorder (OCD)

Total Duration of the Activities: 2 Hours

This session explores Obsessive-Compulsive Disorder (OCD) in children through conventional, *Siddha*-based, and integrated clinical perspectives. Students will be divided into 2–3 groups. One group will focus on conventional management using Cognitive Behavioral Therapy (CBT), pharmacotherapy, and diagnostic tools like Yale-Brown Obsessive Compulsive Scale (Y-BOCS). A second group will present *Siddha* therapeutic options, including internal formulations like *Manapaanthi Chooranam*, medicated oil therapies, and *naadi-based* diagnosis. The third group will propose a combined management approach, suggesting integrative care plans that harmonize both systems. A structured academic debate will follow, encouraging critical discussion of the effectiveness, feasibility, safety, and outcome measures of each system. Students will then collaborate to propose teaching modules and research themes based on pediatric OCD care.

Instructions to Students (First 20 Minutes): Teacher will assign each group a theme: Conventional Management, *Siddha*-Based Management, or Integrated Therapeutic Approach. Students will prepare presentations using case-based reasoning, diagnostic criteria, therapeutic interventions, and follow-up protocols. Teacher will emphasize clarity in communication and evidence-based justification for proposed methods. Students will be briefed to participate in a formal academic debate and to conclude with a teaching or research model draft.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will present their assigned topics using charts, slides, or case summaries. They will describe the clinical features, types, etiology, and diagnostic assessments for pediatric OCD, including Y-BOCS scoring in conventional practice and Siddha diagnostic tools like *prakriti and naadi.* Each group will explain the rationale for their treatment approach, including therapy protocols and expected outcomes.
Step – 02 (Next 40 Minutes): Students will engage in a moderated academic debate comparing *Siddha* and modern management systems for OCD. They will explore evidence strength, patient safety, compliance, and long-term prognosis. The integrated group will propose combined care strategies (e.g., CBT with *Siddha herbal and Varmam* support). All teams will jointly design a teaching module or research proposal highlighting OCD as a pediatric multisystem care priority.
Assessment Methods (Final 20 Minutes): Teacher will assess students on their presentation clarity, debate performance, and clinical reasoning. Peer feedback will be gathered on interdisciplinary understanding and communication. Marks will be given for originality, synthesis of care strategies, and ability to frame teaching content or research outlines relevant to *Siddha*-modern integration in pediatric OCD management.

Practical Training 14.10 : Integrated Management and Innovation in Pediatric Neuropsychiatric Disorders

Total Duration of the Activities: 2 Hours
This session provides an in-depth exploration of pediatric bipolar disorder and schizophrenia through three thematic lenses: (1) Modern Management, (2) *Siddha* Approaches, and (3) Integrative and Entrepreneurial Models. Students will be divided into 2–3 groups, each assigned one theme. They will analyze etiology, symptomatology, and clinical progression of these disorders in children. Students will compare mood stabilizers and antipsychotics with *Siddha internal medicines and external therapies*, discuss prognosis, and propose innovative care pathways. Emphasis is placed on developing academic modules, low-cost interventions, and research initiatives rooted in clinical *Siddha* pediatrics.
Instructions to Students (First 20 Minutes): Teacher will assign each group a theme and provide guidance on presentation expectations. Students will review case examples, scientific literature, and *Siddha* references. Students will identify management gaps and propose integrative protocols and innovation-friendly approaches that can be adapted into teaching modules, research proposals, or *Siddha*-based care models.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will present their assigned topics. Group 1 will explain the modern clinical course and pharmacological management of pediatric bipolar disorder. Group 2 will describe *Siddha* diagnosis and therapeutic approaches for schizophrenia, including *Naadi, Udal Kattugal* derangement, and internal/external therapies. Group 3 will propose integrative care frameworks combining modern and Siddha systems and explore entrepreneurship opportunities such as wellness centers or *herbal* product development.
Assessment Methods (Final 20 Minutes): Teacher will evaluate students based on clarity, depth, and creativity in presenting both systems of care. Assessment will include use of references, integrative reasoning, and feasibility of their proposed models. Peer and faculty feedback will assess critical thinking, collaboration, and innovation in

addressing pediatric neuropsychiatric needs through *Siddha* and modern lenses.

Experiential learning Activity

Experiential-Learning 14.1 : Integrative Management of Pediatric Learning Disabilities

Total Duration of the Activities: 3 Hours
This experiential session equips students to identify and manage pediatric learning disabilities such as dyslexia, dysgraphia, and dyscalculia. Students will explore symptoms, cognitive challenges, and diagnostic tools like psychoeducational assessments. Faculty will demonstrate educational strategies alongside *Siddha*-based supportive therapies such as *Varmam* for cognitive support, nootropic herbs, and stress-reduction practices. Teams will analyze case scenarios, propose individualized intervention plans, and simulate caregiver and school collaboration through role-play. Emphasis is placed on integrative, multidisciplinary approaches that enhance academic performance and emotional resilience.
Instructions to Students (First 20 Minutes): Teacher will review types of learning disabilities and their clinical signs. Diagnostic tools and integrative management strategies—including *Siddha* cognitive therapies and educational support—will be introduced. Students will receive structured instructions for analyzing case studies and preparing a personalized care plan.
Students' Activities
Step – 01 (70 Minutes): Each group will analyze a simulated case scenario, identify the specific type of learning disability, and suggest diagnostic tools such as psychoeducational testing and observation. They will list academic, behavioral, and emotional symptoms relevant to the diagnosis.
Step – 02 (70 Minutes): Groups will design an individualized intervention plan combining educational accommodations (e.g., multisensory teaching, modified assessments) with *Siddha*-based support such as cognitive-enhancing herbs, *Varmam stimulation,* and calming regimens. Role-play will simulate counseling sessions with caregivers and coordination with teachers.
Assessment (Final 20 Minutes): Teacher will assess each group's analysis and integrative plan using a checklist for accuracy, relevance, and practicality. Peer feedback will assess communication, empathy, and collaboration during the role-play. Reflections will highlight understanding of holistic pediatric learning support.

Experiential-Learning 14.2 : Integrated Management of Pediatric Behavioral and Learning Disorders

Total Duration of the Activities: 3 Hours
This experiential learning session immerses students in the clinical assessment and integrative management of pediatric behavioral and learning disorders, including Oppositional Defiant Disorder (ODD), Conduct Disorder, Nonverbal Learning Disorder, and Specific Learning Disabilities. Students will analyze simulated patient profiles to identify diagnostic patterns, etiological factors, and management needs. Faculty will guide students in formulating behavior modification plans that integrate Siddha therapies (Varmam, Kayakarpam, dietary support) with conventional psychological interventions. Emphasis will be placed on caregiver counseling, therapeutic adherence, and exploring academic or research avenues in this domain.
Instructions to Students (First 20 Minutes): Teacher will review clinical features, diagnostic criteria, and differential diagnoses for the assigned disorders. Students will be oriented to develop comprehensive care plans using both Siddha and modern techniques. Guidance will also be given on how to simulate caregiver counseling sessions and

prepare for practical viva.
Students' Activities (Next 140 mins)
Step – 01 (70 Minutes): Working in teams, students will analyze assigned simulated cases, identify presenting symptoms, define behavioral profiles, and determine diagnostic categories. Each group will outline the behavioral and learning management goals aligned with individualized needs.
Step – 02 (70 Minutes):Students will design a complete behavior management plan combining conventional therapies (e.g., CBT, behavioral reinforcement) with Siddha interventions such as Varmam stimulation, Kayakarpam, and customized dietary guidance. Role-plays will simulate caregiver consultation with focus on therapeutic communication and adherence strategies.
Assessment (Final 20 Minutes): Teacher will assess each group through a practical viva and case presentation. The evaluation will focus on clinical accuracy, therapeutic integration, and creative strategy formulation. Peer feedback will assess communication effectiveness, teamwork, and clarity in role-play interactions.

Experiential-Learning 14.3 : Integrated Case Simulation: Learning Disorders and Pediatric Anxiety

Total Duration of the Activities: 3 Hours
This experiential activity immerses students in a simulated clinical problem-solving environment where they manage pediatric cases involving (1) Specific Learning Disabilities/Nonverbal Learning Disorder and (2) Childhood Anxiety/Depression. Students will analyze symptoms, derive a diagnosis, and develop integrated management plans using *Siddha therapies* (internal, external, lifestyle) alongside conventional care. They will conduct role plays simulating caregiver counseling sessions, focusing on therapeutic compliance, emotional reassurance, and communication. Opportunities for innovation and research in wellness and behavioral health models will be explored collaboratively.
Instructions to Students (First 20 Minutes): Teacher will introduce the neurodevelopmental and emotional conditions covered in the session. Guidelines will be provided for integrating *Siddha therapies* into care plans and performing caregiver simulations. Students will be oriented on diagnostic cues, therapy planning, and the significance of empathy in child-caregiver interaction.
Students' Activities
Step – 01(70 Minutes):Each group will analyze an assigned clinical case, extract key clinical features, and identify diagnostic criteria. Students will create a comprehensive treatment plan combining *Siddha internal and external therapies,* behavioral strategies, and relevant conventional interventions, tailored to the pediatric condition.
Step – 02 (70 Minutes):Students will conduct a simulated counseling session with caregivers. The role-play will include behavior guidance, *Siddha* lifestyle advice, and supportive therapy integration. Communication techniques and emotional intelligence will be emphasized in presenting the care plan and answering caregiver queries.
Assessment (Final 20 Minutes): Teacher will evaluate each group using a structured checklist, focusing on diagnostic accuracy, *therapy* integration, and communication in role-play. Case summaries will be reviewed for clinical coherence. Feedback will be given on interpersonal sensitivity, use of *Siddha*-based approaches, and innovation in pediatric care planning.

Experiential-Learning 14.4 : Designing a *Siddha* Wellness Center for Special Children

Total Duration of the Activities: 3 Hours

This experiential learning activity guides students through designing a *Siddha*-integrated wellness center tailored for children with special needs. Students will explore existing pediatric rehabilitation models and collaboratively draft a facility blueprint integrating *Siddha* therapies with conventional services such as Occupational Therapy (OT), Physiotherapy (PT), and Speech Therapy. Emphasis is placed on child-friendly design, accessibility, holistic therapeutic flow, and interdisciplinary staffing. Students will prepare visual representations and staffing plans that reflect real-world pediatric wellness infrastructure and service delivery.
Instructions to Students (First 20 Minutes): Teacher will introduce the key components of a *Siddha* wellness center, including essential therapeutic zones, infrastructure features for accessibility, and integration of multidisciplinary teams. Students will be guided on designing facility blueprints and staffing strategies suited for holistic pediatric care.
Students' Activities
Step – 01 (70 Minutes):Groups will design a comprehensive wellness center layout including zones for *Siddha* therapies *(e.g., Thokkanam, Varmam)*, conventional therapies (OT/PT/speech), sensory integration rooms, special education areas, waiting zones, and child-safe access. The layout should reflect therapeutic flow and child comfort.
Step – 02 (70 Minutes): Students will create a staffing blueprint outlining roles for *Siddha* practitioners, OT/PT/speech therapists, educators, counselors, and support staff. Focus will be on collaborative care, team integration, and administrative organization. Each group will prepare a visual poster or model to present their concept.
Assessment (Final 20 Minutes): Teacher will assess each group using a structured checklist focusing on functional design, therapeutic integration, and child-centered planning. Students will explain their infrastructure and staffing decisions during a viva. Peer assessment will be used to evaluate teamwork, innovation, and presentation clarity.

Experiential-Learning 14.5 : Business Plan Simulation for a *Siddha* Wellness Center for Special Children

Total Duration of the Activities: 3 Hours
This experiential session enables students to simulate the creation of a realistic business plan for a *Siddha*-integrated wellness center catering to children with special needs. Through financial templates and case studies, students will work in teams to estimate capital and operational costs, forecast revenue, and explore funding options such as government schemes, public-private partnerships, and philanthropic support. The session emphasizes revenue optimization through therapy services and wellness programs, cost control mechanisms, and adherence to healthcare finance regulations.
Instructions to Students (First 20 Minutes): Teacher will explain key components of healthcare business planning including budgeting, cost projections, revenue modeling, and sustainability frameworks. Sample *Siddha* wellness models and funding templates will be reviewed. Students will be grouped and briefed on their task to simulate a startup financial strategy.
Students' Activities
Step – 01(70 Minutes): Teams will estimate the startup and operational costs of a *Siddha* wellness center including infrastructure, staffing, supplies, and therapy services. They will identify revenue-generating services, forecast financial returns, and propose expense control strategies to ensure affordability and access.
Step – 02 (70 Minutes): Groups will create a financial sustainability roadmap, outlining funding opportunities (e.g., AYUSH grants, private investments), risk mitigation plans, and regulatory compliance. A visual summary or presentation slide deck will be prepared to demonstrate business viability and long-term impact.
Assessment (Final 20 Minutes): Each team will present their business plan and sustainability model. Teacher will use a checklist to assess budgeting accuracy, innovation in revenue planning, and regulatory understanding. A brief viva will probe financial logic and planning realism. Peer feedback will assess clarity and collaborative

effectiveness.

Experiential-Learning 14.6 : Legal and National Accreditation Board for Hospitals (NABH) Compliance Simulation for *Siddha* Pediatric Wellness Centers

Total Duration of the Activities: 4 Hours

This experiential session provides students with practical exposure to the legal and regulatory aspects of operating a *Siddha* pediatric wellness center. Students will explore licensing procedures, statutory registrations, and the NABH (National Accreditation Board for Hospitals) standards. Through case studies and simulations, students will create compliance checklists, draft quality assurance documents, and role-play a mock NABH accreditation audit. The activity highlights child-centric standards, legal obligations, safety protocols, and quality benchmarks in *Siddha* pediatric care.

Instructions to Students (First 20 Minutes): Teacher will introduce legal compliance essentials for *Siddha* healthcare, focusing on pediatric-specific licensing, registration, AYUSH guidelines, and NABH accreditation processes. Students will learn how regulatory adherence ensures patient safety, operational integrity, and institutional credibility.

Students' Activities

Step – 01(70 Minutes): In teams, students will draft a legal compliance checklist for establishing and operating a *Siddha* pediatric center. This will include licensing, registration under AYUSH and clinical establishment acts, *Siddha* therapy regulations, and basic labor and fire safety norms.

Step – 02 (70 Minutes): Teams will prepare mock NABH documentation such as safety protocols, infection control policies, pediatric SOPs, and quality assurance charters. Students will focus on aligning these documents with child care standards and *Siddha* therapeutic practices.

Step – 03 (60 Minutes): Each group will participate in a simulated NABH audit. Students will alternate roles between NABH auditors and *Siddha* wellness center representatives. Teams will present their readiness, defend their documentation, and respond to regulatory queries in real time.

Assessment (Final 20 Minutes): Teacher will evaluate compliance documents and audit responses using a structured checklist. Students will also face scenario-based questions to test their understanding of regulatory frameworks. Practical viva will assess their ability to apply legal standards to *Siddha* pediatric contexts. Peer feedback will reflect communication, teamwork, and preparedness.

Experiential-Learning 14.7 : Simulated Case Management of Pediatric Obsessive-Compulsive Disorder (OCD) with Integrative Therapies

Total Duration of the Activities: 3 Hours

This experiential learning activity engages students in a team-based clinical simulation focused on pediatric Obsessive-Compulsive Disorder (OCD). The session begins with faculty-led guidance on OCD presentation, diagnostic findings, and *therapy* integration. Students then develop a comprehensive treatment plan incorporating *Siddha* internal and external modalities, modern pharmacological strategies, and behavioral interventions. They will perform a caregiver counseling role-play, emphasizing communication, personalized care, and therapeutic adherence. The session promotes a deeper understanding of multidisciplinary management and *Siddha*-conventional integration in pediatric psychiatric care.

Instructions to Students (First 20 Minutes): Teacher will outline the clinical features of pediatric OCD and diagnostic approaches. Students will be oriented to the structure of the activity, including treatment planning and simulation of caregiver communication. The emphasis will be on holistic, patient-centered, and personalized therapeutic

strategies.
Students' Activities
Step – 01 (70 Minutes): Each team will design an integrative treatment plan for a simulated pediatric OCD case. The plan will combine *Siddha internal and external therapies (e.g., oils, poochu, formulations)*, conventional medications if applicable, and behavioral techniques such as CBT. Students will also prepare key counseling points for the family.
Step – 02 (70 Minutes): Students will simulate a clinical team presenting the diagnosis and treatment plan to the child's caregivers through a role-play. They will demonstrate communication skills, address caregiver concerns, and reinforce therapy adherence. Teams will receive real-time feedback from peers and faculty.
Assessment (Final 20 Minutes): Teacher will assess students using a checklist covering diagnostic interpretation, integrative planning, and clarity in role-play communication. Scenario-based questions will be used to test understanding of therapy personalization, *Siddha* integration, and behavioral management. Peer evaluation will support collaborative learning feedback.

Experiential-Learning 14.8 : Integrated Simulation: Pediatric Neuropsychiatric Case Management

Total Duration of the Activities: 4 Hours
This experiential session involves students in managing pediatric neuropsychiatric disorders through integrative clinical simulations. Divided into teams, students will explore two complex cases: (1) Bipolar Disorder/Schizophrenia and (2) Tourette Syndrome/Developmental Coordination Disorder (DCD). They will evaluate etiology, symptoms, and diagnosis, and formulate comprehensive treatment plans using *Siddha therapies*, conventional medicine, and behavioral interventions. Emphasis will be placed on therapy planning, communication through caregiver simulation, and exploration of research and entrepreneurial models for innovative pediatric mental health care.
Instructions to Students (First 20 Minutes): Teacher will provide an overview of each neuropsychiatric condition, outline expectations for *Siddha*-conventional integration, and explain the structure of simulation activities. Guidelines will be given on analyzing diagnostic elements, developing care plans, and preparing for caregiver interaction role-plays.
Students' Activities
Step – 01 (70 Minutes): Each team will review a clinical case (either Bipolar/Schizophrenia or Tourette/DCD). Students will identify the condition's etiology, symptom clusters, and differential diagnoses, and assess current treatment limitations. The focus will be on understanding the complete clinical picture.
Step – 02 (70 Minutes):Students will collaboratively design a personalized, integrative care plan incorporating *Siddha internal and external therapies*, conventional psychiatric treatments, family support strategies, and therapeutic goals. Considerations for patient safety, therapeutic adherence, and caregiver education will be included.
Step – 03 (60 Minutes):Teams will simulate a caregiver consultation, role-playing both physician and parent. They will present their treatment plan, offer emotional support, and address practical concerns. Students will reflect on their therapeutic rationale, communication clarity, and handling of sensitive issues.
Assessment (Final 20 Minutes):Teacher will assess each group using a structured checklist for diagnostic interpretation, integrative planning, and communication skill. Role-play effectiveness and therapeutic logic will be evaluated. Peer feedback will complement the evaluation, and short case-based questions will test applied knowledge and decision-making skills.

Modular Assessment	
Assessment method	**Hour**
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 6C. Section A - 25 Marks - ABQ/ LAQ/SAQ & Section – B. This 25-mark assessment evaluates students' skills in analyzing, diagnosing, and managing pediatric neurodevelopmental and behavioral conditions such as ASD, ADHD, intellectual disability, and sensory disorders. It emphasizes clinical reasoning, Siddha-modern integration, institutional planning, and psychosocial support strategies through simulated scenarios and structured responses with a patient-centric approach. Instructions to Students : Students will be provided with a pediatric scenario involving conditions like autism, learning disability, or ADHD. Perform structured analysis, propose a management plan including Siddha and modern interventions, outline facility/resource requirements, and present psychosocial or caregiver strategies. Your therapeutic decisions and communication clarity will be evaluated in a viva format. Instructions to Teachers : Create scenarios reflecting real-life neurodevelopmental or behavioral disorders. Assess students on their ability to correlate clinical symptoms with diagnostic criteria, formulate integrative treatment plans, propose facility and staffing models, and communicate strategies effectively. Use structured checklists to evaluate *Siddha* integration, care coordination, and soft skill demonstration during viva sessions. Mark Distribution: Clinical Diagnosis and Prioritization carries 6 marks, assessing symptom analysis and condition recognition. Integrative Treatment Plan (Siddha + Scientific) is allotted 7 marks. Institutional Resource Planning or Family Strategy Proposal carries 5 marks. Mini-Viva on Psychosocial and Ethical Aspects receives 4 marks, and Communication and Confidence carries 3 marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).	4

Semester No : 6

Module 15 : ???????????? ???? ??????? ???? ???????????????? ??????? ????? ??????? Kuzhanthaigalin Udal Matrum Manam Arogiyathirkana Siddhar Yoga Muraigal (Pediatric Yoga for Physical and Mental Development)

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

Describe the principles and benefits of Siddhar Yogam in pediatrics.
Discuss age-appropriate Siddhar Yogam postures for children's physical development.
Identify breathing techniques for respiratory and emotional regulation.
Discuss Siddhar Yogam role in behavioral and cognitive enhancement.
Apply Siddhar Yogam for prevention and management of pediatric disorders.
Integrate Siddhar Yogam with diet and conventional pediatric treatments.

M 15 Unit 1 ?????????????? ??????? ??? ????????? ??????????? - Kuzhanthaigalukkana Siddhar Yogam Muraikalin Adippadaigal Foundations of Siddha Pediatric Yoga

15.1.1 Introduction to Siddhar Yogam for Children – Yoga philosophy, physical postures, breath regulation, mindfulness, pediatric well-being, mind-body-spirit alignment, holistic framework.
15.1.2 Philosophy of Yogam in Pediatric Siddha Medicine – Siddhar-Yogam integration, muktram balance, spiritual development, constitutional harmony, traditional pediatric wellness concepts.
15.1.3 Yogam for Physical Growth and Development – Posture-based muscle strength, bone development, flexibility improvement, Siddha-aligned exercises, child-specific growth enhancement.
15.1.4 Yogam for Mental Health and Cognitive Development – Concentration improvement, memory sharpening, emotional regulation, stress reduction, mind-focused practices, cognitive advancement.
15.1.5 Preventive Health Through Siddhar Yogam – Immunity strengthening, digestion support, respiratory health, daily routine regulation, humor balance, lifestyle-based disease prevention.

References: 1,8,9,23,30,103,136

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Describe the principles and philosophy of Siddha Yoga in pediatric care, focusing on the integration of physical postures, breathing techniques, and mindfulness to promote holistic child development.	1	Lecture	CAN	Knows-how	D-BED,D,L&GD
CO1,CO3,CO5	Discuss regular practice of Siddha Yoga can serve as a preventive health measure,	1	Lecture	CAN	Knows-	DIS,L,L&

	addressing common pediatric ailments and boosting immunity while maintaining balance in the body and mind according to Siddha principles.				how	GD
CO3,CO5,CO6	Describe the philosophy and practice of *Siddhar Yogam* in pediatric care.	2	Practical Training 15.1	CC	Know	JC,PL
CO3,CO4,CO6	Demonstrate *Siddhar Yogic* postures that promote growth and physical development.	2	Practical Training 15.2	PSY-MEC	Know	EDU,D,BL,DIS
CO3,CO4,CO6	Demonstrate *Siddhar Yogic* postures for improving concentration and cognition.	2	Practical Training 15.3	PSY-MEC	Know	D,SIM,BL
CO1,CO3,CO7	Apply *Siddhar Yogam* principles in pediatric therapeutic contexts	3	Experiential-Learning 15.1	AFT-VAL	Know	DIS,W,SDL,D,RLE
CO3,CO5,CO7	Demonstrate *Yoga* postures supporting digestion and *Siddha* dietary integration	3	Experiential-Learning 15.2	PSY-GUD	Does	PAL,D,RLE,SIM,W

M 15 Unit 2 ???????????? ???? ???????????????? ??????? ??? ?????????? – Kuzhanthaigalin Udal Arokiyathirkana Yogam Paiyrchigal - Siddha Yoga Practices for Physical Health

15.2.1 Postures for Musculoskeletal Health in Children – Bone strength development, muscular support, spinal alignment, posture correction, growth stimulation, Siddha-guided physical enhancement.
15.2.2 Breathing Techniques for Respiratory Health – Lung capacity expansion, breath regulation, pranayama practice, cold and asthma control, Siddha-aligned respiratory maintenance.
15.2.3 Yogam for Digestive Health – Gastrointestinal stimulation, constipation prevention, indigestion relief, abdominal movements, Siddha dietary harmony, gut wellness.
15.2.4 Yogam for Enhancing Flexibility and Balance – Stretch-based coordination, balance training, motor skill improvement, joint mobility, physical resilience, postural symmetry.
15.2.5 Yogam for Immunity Boosting – Immune system stimulation, infection resistance, integrated postures and breathwork, Siddha preventive care, holistic

pediatric defense.

References: 21,23,30,76,103,105,120,135,136,137

3A	3B	3C	3D	3E	3F	3G
CO1,CO5	Discuss the role of specific Siddhar Yogam postures and breathing techniques in promoting musculoskeletal, respiratory, and digestive health in children, emphasizing their preventive benefits for common pediatric issues.	1	Lecture	CS	Knows-how	D,L&GD,L_VC,D-BED,LS
CO3	Describe the principles of Siddhar Yogam postures and breathing techniques to promote children's health.	1	Lecture	CAP	Know	C_L,L,RLE,L&GD
CO3,CO4,CO6	Demonstrate breathing techniques that support pediatric respiratory wellness.	2	Practical Training 15.4	PSY-MEC	Know	SIM,D,BS
CO3,CO4,CO6	Demonstrate *Yogic* postures that support digestion and gut regulation.	2	Practical Training 15.5	PSY-GUD	Know	D,TBL,SIM
CO3,CO5,CO7	Demonstrate *Yoga postures* that support bone and muscle development	3	Experiential-Learning 15.3	PSY-GUD	Does	D,SIM,RLE,W,PL
CO3,CO5,CO7	Practice *Siddhar Yogam* for improving immune resilience in children	3	Experiential-Learning 15.4	PSY-GUD	Does	PL,D,SIM
CO1,CO3,CO5	Describe how Siddhar Yogam improves flexibility, balance, and immunity in promoting pediatric physical development.	1	Lecture	CC	Knows-how	BS,DIS,L&GD

M 15 Unit 3 ???? ??????? ?????? ??????????? ??????? ??? ??????? - Unar matrum Nadaththai Samanilaikkana Siddhar Yogam Muraigal - Siddha Yoga for Emotional and Behavioral Balance

15.3.1 Yogam for Emotional Regulation – Stress reduction, anxiety control, emotional stability, breathing practices, relaxation techniques, pediatric resilience enhancement.

15.3.2 Mindfulness and Breathing for Calmness – *(Mootchu pairchi) Pranayamam* practice, hyperactivity control, inner peace cultivation, anxiety reduction, focus stabilization, calmness training.
15.3.3 Yogam for Positive Behavioral Development – Discipline improvement, emotional control, patience building, social adjustment, behavioral harmony, Siddhar Yogam routines.
15.3.4 Yogam for Social and Emotional Learning – Empathy building, teamwork development, cooperation exercises, group interaction, Siddha holistic engagement, social growth.
15.3.5 Therapeutic Yogam for Behavioral Disorders – ADHD symptom control, anxiety management, concentration enhancement, Siddha-based Yogam protocols, behavioral therapy integration.

References: 10,11,23,76

3A	3B	3C	3D	3E	3F	3G
CO3,CO5,CO7	Demonstrate mindfulness and *Pranayamam* for pediatric behavioral balance	3	Experiential-Learning 15.5	PSY-GUD	Does	W,D,PL
CO3,CO4,CO6	Demonstrate behavior-regulating *Siddhar* Yogic techniques for pediatric therapeutic care.	2	Practical Training 15.6	PSY-MEC	Know	D,TBL,SIM
CO2,CO3,CO4	Apply *Yoga* techniques for behavioral regulation in pediatric care	4	Experiential-Learning 15.6	PSY-GUD	Know	PAL,W,D,SIM,RLE
CO1,CO3	Describe Siddhar Yogam breathing and relaxation techniques for stress reduction and emotional regulation in children.	1	Lecture	CAN	Know	DIS,L&GD
CO3,CO4,CO6	Demonstrate *yoga* practices that promote emotional balance and social resilience.	2	Practical Training 15.7	PSY-MEC	Know	D,TBL
CO1,CO3,CO5	Discuss mindfulness, breathing, and Yoga group practices for improving pediatric social-emotional learning and empathy.	1	Lecture	CC	Know	TBL,PL,DIS
CO1,CO3,CO5	Discuss therapeutic Yoga techniques for managing Attention-Deficit Hyperactivity Disorder (ADHD), anxiety, and improving emotional and behavioral regulation.	1	Lecture	CC	Know	PL,DIS

M 15 Unit 4 ?????????????? ???????????? ??????? ??? ??????? – Kuzhanthaigalukkaana Orunginaintha Yogam Muraigal - Integrating Yoga with Pediatric Care

15.4.1 Combining Siddhar Yogam with Conventional Treatments – Integrative healing support, treatment efficacy enhancement, mind-body balance, pediatric recovery aid, Siddha-modern synergy.
15.4.2 Yogam as a Preventive Tool in Pediatric Health – Respiratory infection prevention, digestive wellness, mental health resilience, lifestyle discipline, pediatric immunity maintenance.
15.4.3 Age-Appropriate Yogam Practices for Children – Infant routines, toddler flexibility, school-age strength building, developmental safety, age-tailored posture selection.
15.4.4 Yogam for School-Age Children – Focus and concentration training, cognitive function improvement, academic performance support, memory stimulation, breathing and posture alignment.
15.4.5 Dietary Guidelines in Combination with Yogam for Pediatric Health – Siddha dietary principles, nutrient balance, digestion and immunity support, Yoga-diet integration, holistic child nourishment.

References: 9

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO6	Design and present age-appropriate *Siddhar Yoga* practices for children.	2	Practical Training 15.8	CS	Knows-how	C_L,LS,TBL
CO3,CO5,CO7	Demonstrate and structure *Yoga* for cognitive support in children	3	Experiential-Learning 15.7	PSY-GUD	Does	SIM,PL,D
CO3,CO4,CO6	Present and analyze the preventive role of *Yoga* in pediatric health.	2	Practical Training 15.9	PSY-MEC	Know	SY,C_L,PER
CO3,CO4,CO6	Design and present age-appropriate *Siddhar Yoga* practices for children.	2	Practical Training 15.10	CS	Knows-how	BL,SDL,LS
CO3,CO5,CO6	Design integrative Yoga and diet protocols for pediatric wellness	4	Experiential-	AFT-	Does	CBL,DIS,

			Learning 15.8	CHR		SIM,D,PL
CO2,CO3,CO4,CO6	Describe Siddha Yoga's role in complementing pediatric treatments and promoting holistic child well-being.	1	Lecture	CC	Knows-how	CBL,L&GD
CO1,CO3,CO5	Discuss age-specific Yoga practices for toddlers and children ensuring safety, efficacy, and developmental relevance.	1	Lecture	CC	Knows-how	D,L&GD

Practical Training Activity

Practical Training 15.1 : Philosophical and Therapeutic Applications of Pediatric *Siddhar Yogam*

Total Duration of the Activities: 2 Hours

This practical session introduces students to the theory and practice of *Siddhar Yogam* as applied to pediatric wellness and development. Students will explore the philosophy of *Yogam* in *Siddha medicine*, including its spiritual, mental, and physical components tailored for children. Emphasis will be placed on *Uyir thathu* development, *Vaasi Yogam* and discipline of the mind and body in pediatric age. Students will study classical *Siddha* texts referencing *Siddhar Yogic* practices, and present their applications in constitutional harmony, behavior regulation, and immune strengthening in children.

Instructions to Students (First 20 Minutes): Teacher will introduce the concept of *Siddhar Yogam* with a focus on its pediatric relevance. Students will be guided through a library session to explore classical texts references. Each group will be assigned subtopics (e.g., *Yogic* food discipline in children, early-stage *Yogic* practices for mental stability, role of *Vaasi* in pediatric neurodevelopment) for reading, compilation, and discussion.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will conduct a critical reading of selected passages and extract key *Siddha Yogic* teachings applicable to pediatric health. They will compile notes on physical postures, mental discipline, moral codes, and *Vaasi*-based breath control suitable for various stages of child development.

Step – 02 (Next 40 Minutes):Students will prepare a group presentation summarizing their understanding of Pediatric *Siddhar Yogam*, including spiritual foundations, behavioral outcomes, and suggested practices. They will propose methods to introduce *Siddhar Yogic* discipline in pediatric *Siddha* clinical care and preventive programs. Peer review and guided discussion will follow each presentation.

Assessment Methods (Final 20 Minutes):Teacher will assess each group's compilation and presentation based on depth of understanding, classical alignment, and clarity. Peer assessment and critical reading papers will be used to evaluate collaborative engagement and the ability to connect *Siddhar Yogic* philosophy with pediatric care. A brief viva will test comprehension of the *yogic* framework and its practical integration.

Practical Training 15.2 : *Siddhar Yogic* Postures for Enhancing Pediatric Physical Growth and Development

Total Duration of the Activities: 2 Hours

This practical session focuses on *Siddhar Yogic* practices designed specifically to support physical growth and development in children. Students will learn and demonstrate postures aimed at improving muscle strength, bone development, posture alignment, and flexibility. The session will incorporate demonstration, interactive video-based learning, and fun educational activities (edutainment) to reinforce the understanding of *yoga* as a pediatric growth enhancer. Emphasis will be placed on selecting child-friendly, safe postures that can be applied in home or clinical care.

Instructions to Students (First 20 Minutes): Teacher will introduce the physiological basis of growth in children and its relation to muscle, bone, and joint development. Students will be guided through a blended module using video demonstrations, models, and charts to understand the rationale behind selected *Siddhar Yogic* postures. Safety guidelines and age-appropriate modifications will be explained.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will practice 10 *Siddhar Yogic* postures under teacher supervision to enhance muscle strength, bone development, posture alignment, and flexibility. The selected postures include *Tadasana, Vrikshasana, Utkatasana, Bhujangasana, Setu Bandhasana, Dhanurasana, Trikonasana, Paschimottanasana, Marjariasana, and Balasana*. Each pose will be performed with proper alignment, breath coordination, and child-friendly modifications. Students will observe the targeted muscle engagement and flexibility outcomes, reinforcing the role of *Siddhar Yogam* in promoting healthy physical growth in pediatric *Siddha care.*

Step – 02 (Next 40 Minutes): Students will participate in a child-focused edutainment session, designing an interactive *yoga* module for use in pediatric settings. Each group will prepare a play-based routine incorporating selected postures, fun breathing exercises, and simple movement games. Groups will perform their routines for peer review and discuss its applicability in *Siddha* pediatric wellness programs.

Assessment Methods (Final 20 Minutes):Teacher will use a performance checklist to assess accuracy, alignment, and safety of posture demonstration. Peer assessment will evaluate creativity and engagement during the edutainment task. A short practical viva will test understanding of posture selection and its relevance to pediatric physical development and *Siddhar Yogic* philosophy.

Practical Training 15.3 : *Siddha Yogam* Practices for Enhancing Pediatric Mental Health and Cognitive Development

Total Duration of the Activities: 2 Hours

This session focuses on *Siddha Yogam* practices specifically designed to support pediatric mental health and cognitive development. Students will learn and perform at least 10 *Yogic* postures and techniques that promote concentration, memory sharpening, emotional stability, and stress regulation in children. The learning process includes demonstration, simulation, and guided practice, supported by blended and reflective learning. Each posture will be discussed in terms of its impact on cognitive pathways, neural stimulation, and mind-body harmony in growing children.

Instructions to Students (First 20 Minutes): Teacher will introduce the link between *Yogic* practices and cognitive enhancement in children. Students will be guided through the neurological and emotional benefits of specific *Siddha Yogam postures*. A video clip or short lecture will demonstrate their role in stimulating the brain, improving focus, and supporting mental health. Safety, breath control, and posture alignment will be explained.

Students activities

Step – 01 (First 40 Minutes): Students will learn and perform 10 *Siddhar Yogic* postures specifically selected for their benefits on pediatric mental and emotional health. These include *Padmasana* for calming the mind, *Vajrasana* for emotional grounding, *Sukhasana* for relaxation, *Bhramari Pranayama* for anxiety relief, *Nadi Shuddhi* for energy balance, *Balasana* to relax the nervous system, *Ardha Matsyendrasana* for stimulating brain function, *Sarvangasana* to enhance memory, *Shavasana* for deep

relaxation, and *Trataka* to improve focus and visual concentration. Students will perform each posture under teacher supervision, ensuring proper breath coordination, posture alignment, and safety throughout the session.
Step – 02 (Next 40 Minutes):Students will form groups and design a daily *Siddha Yogam* routine aimed at pediatric cognitive enhancement. Each group will include the 10 postures learned, sequence them with rationale, and present how this routine could be used in clinical practice, schools, or homes. Emphasis will be placed on adaptability, child-friendliness, and mental wellness goals.
Assessment Methods (Final 20 Minutes): Teacher will assess each student using a posture performance checklist focusing on technique, coordination, and mind-body integration. Peer assessment will be used to review group routine designs. A practical viva will test student understanding of each posture's relevance to cognition, emotional regulation, and pediatric *Siddha* philosophy.

Practical Training 15.4 : *Siddha*-Aligned Breathing Techniques for Enhancing Pediatric Respiratory Health

Total Duration of the Activities: 2 Hours
This practical session focuses on breathing techniques aligned with *Siddha principles* to support respiratory health in children. Students will learn and perform breath regulation methods that promote lung capacity expansion, mucous clearance, breath awareness, and prevention of common conditions such as cold, cough, and asthma. The session includes guided practice of *Pranayama, Siddha*-relevant breathing practices, and therapeutic lifestyle integration for respiratory resilience.
Instructions to Students (First 20 Minutes): Teacher will introduce the physiology of pediatric lung development and its relation to breath regulation. Students will be oriented to safe and child-appropriate breathing practices. The significance of *Siddha*-aligned respiratory care, including the role of *Vaasi* and daily breath routines, will be discussed using videos and live demonstrations.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes):Students will learn and practice 10 structured breathing techniques such as Deep Abdominal Breathing, alternate nostril breathing, humming breath, *poorgam-resagam*, Balloon Breathing, and Thoracic Expansion Drills. Each will be demonstrated and practiced with attention to breath control, posture, and rhythm, focusing on benefits for asthma control, congestion relief, and lung expansion.
Step – 02 (Next 40 Minutes): Students will work in small groups to design a pediatric respiratory wellness routine incorporating 4–5 breathing practices. They will include guidelines for timing, frequency, child engagement strategies, and integration with *Siddha* daily regimens. Each group will present their model, demonstrating key techniques and explaining expected outcomes for respiratory strengthening and maintenance.
Assessment Methods (Final 20 Minutes):Teacher will assess student performance using a checklist for breath technique accuracy, rhythm, and posture. Peer assessment will review clarity of group presentations and creative engagement in routine design. A short practical viva will evaluate understanding of each breathing technique's respiratory effect and its place within a *Siddha* pediatric preventive framework.

Practical Training 15.5 : *Siddhar Yogic* Practices for Pediatric Digestive Health and Gut Wellness

Total Duration of the Activities: 2 Hours
This practical session focuses on *Siddhar Yogic* postures that enhance digestive health in children. Students will learn and perform at least 10 unique postures (non-

repeating) that help in stimulating gastrointestinal function, preventing constipation, relieving indigestion, and promoting *Siddha* dietary harmony. Emphasis will be placed on breath-coordinated abdominal movements, gut stimulation, and postures suitable for daily pediatric wellness routines.
Instructions to Students (First 20 Minutes): Teacher will explain the physiological basis of digestion and the connection between abdominal movement and gut function. Students will be introduced to *Siddhar Yogic* principles related to agni (digestive fire) and gut wellness. Emphasis will be placed on gentle, child-appropriate movements with deep breathing techniques that activate digestive organs and support elimination.
Students activities
Step – 01 (First 40 Minutes): Students will learn and perform 10 *Siddhar Yogic postures* aimed at promoting digestive stimulation and gut health. These include *Pavanamuktasana, Apanasana, Trikonasana, Parivritta Trikonasana, Ustrasana, Shashankasana, Supta Matsyendrasana, Mandukasana, Paschimottanasana, and Marjaryasana–Bitilasana* (Cat-Cow). Each posture targets digestive organs through gentle abdominal compression and twisting. Under teacher supervision, students will practice these postures with proper alignment, breath synchronization, and child-appropriate modifications to reinforce their therapeutic impact on pediatric gastrointestinal function.
Step – 02 (Next 40 Minutes): Students will work in small groups to create a digestive health *yoga* sequence combining 4–5 of the learned postures. They will explain how each posture contributes to gut stimulation, *Siddha* dietary harmony, and digestive regulation. Each group will guide a mock session as if teaching children, incorporating breath cues and relaxation intervals, and present the sequence to peers for feedback.
Assessment Methods (Final 20 Minutes): Teacher will assess each student's performance using a checklist focused on posture execution, technique, and safety. Peer assessment will review group teaching clarity and effectiveness. A brief practical viva will evaluate student understanding of each posture's digestive benefit and relevance in *Siddha* pediatric lifestyle care.

Practical Training 15.6 : *Siddhar* Yogam for Positive Behavioral Development and Therapeutic Management

Total Duration of the Activities: 2 Hours
This practical session focuses on the application of *Siddhar Yogic* techniques for enhancing positive behavioral traits such as discipline, emotional regulation, and patience, and for managing conditions like Attention-Deficit/Hyperactivity Disorder (ADHD) and pediatric anxiety disorders. Students will explore how *Siddhar Yogam* can be systematically integrated into pediatric behavioral therapy and daily care routines. Emphasis is placed on structured observation, individualized practice, and therapeutic reasoning aligned with *Siddha principles.*
Instructions to Students (First 20 Minutes): Teacher will explain the core concepts of behavioral imbalance in children and introduce the *Siddhar Yogic* approach to regulating such conditions. Students will be instructed on how to apply yoga sequences to support behavioral improvement, manage hyperactivity, and encourage emotional stability. Guidelines for role play, therapeutic structure, and observational learning will be provided.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will individually perform a series of *Siddhar Yogic* practices known to support emotional control, attention, and discipline. These techniques will be demonstrated and supervised by the teacher, with students evaluated on posture control, breath regulation, focus, and behavioral intent. Students will receive feedback and be encouraged to reflect on the practical effects of these exercises.
Step – 02 (Next 40 Minutes): In teams, students will be given a behavioral case scenario (e.g., pediatric anxiety, impulsivity, or social withdrawal). Each team will analyze

the case and design a *yoga*-based therapeutic response, explaining how their intervention promotes positive behavioral change. The team will then simulate the session, role-playing child–therapist interaction and presenting their reasoning and care objectives.
Assessment Methods (Final 20 Minutes):Teacher will administer a Theory Open Book Test focusing on the *Siddha* philosophy of behavior and mind regulation. A Practical Problem-Solving task will require students to select and justify appropriate *Siddhar Yogic* techniques for specific behavioral cases. The Objective Structured Practical Examination (OSPE) will assess their execution of yoga techniques, understanding of therapeutic goals, and integration of Siddha behavioral strategies in pediatric contexts.

Practical Training 15.7 : Pediatric *Siddhar Yoga* for Emotional Regulation, Mindfulness, and Social-Emotional Learning

Total Duration of the Activities: 2 Hours
This practical session introduces students to pediatric Siddhar Yoga techniques designed to enhance emotional regulation, mindfulness, and social-emotional learning (SEL) in children. Students will learn and practice 10 *yoga postures* and breathing exercises that help reduce stress, anxiety, and hyperactivity, while supporting focus, empathy, teamwork, and inner calmness. The session includes kinaesthetic group practice, guided breathing and relaxation, and social interaction exercises rooted in *Siddha* philosophy to build emotional resilience and self-awareness in pediatric care.
Instructions to Students (First 20 Minutes): Teacher will explain the psychological and emotional needs of children and the role of *yoga* in promoting calmness, emotional stability, and social connectedness. Students will be introduced to mindfulness-based breathing techniques, *yoga* postures, and simple cooperative exercises. Teacher will also brief students on posture safety, rhythm, and child-centered interaction methods.
Students activities
Step – 01 (First 40 Minutes): Students will learn and practice *10 Siddhar Yogic* postures and techniques aimed at enhancing emotional regulation and mindfulness. These include *Sukhasanam* with mindful breathing, *Balasanam, Vajrasanam with Bhramari, Tadasanam, Vrikshasanam, Pooragam-Resagam, Setu Bandhasana, Padmasanam, Shavasanam* with guided body scan, and a group yoga circle with synchronized breathing. Under teacher guidance, students will focus on breath control, awareness, and using posture to support emotional grounding and mental clarity in pediatric settings.
Step – 02 (Next 40 Minutes): Students will form small teams and enact short yoga-based SEL modules including cooperative postures, guided breathing for group calmness, and partner empathy practices. Each team will present a 3–5 minute routine focusing on one emotion (e.g., joy, anger, fear) and demonstrate how yoga and breathing can guide children through it. Emphasis will be on interaction, group harmony, and therapeutic creativity.
Assessment Methods (Final 20 Minutes): Teacher will use Direct Observation of Procedural Skills (DOPS) to assess individual performance of yoga and breathing techniques. A Trainer's Report will capture team coordination, emotional expression, and therapeutic goal alignment. Peer assessment will evaluate presentation effectiveness, posture flow, and integration of *Siddhar Yogic principles* for pediatric emotional and social wellness.

Practical Training 15.8 : Age-Appropriate *Siddhar Yogic* Practices for Pediatric Development

Total Duration of the Activities: 2 Hours
This session focuses on identifying and demonstrating age-appropriate *Siddhar Yogic* routines tailored to infants, toddlers, and school-age children. Students will explore how *yoga* can support flexibility, physical strength, cognitive growth, and behavioral discipline across developmental stages. Emphasis will be placed on posture selection,

safety, and academic performance support through focused breathing and alignment. The session involves creating visual posters, compiling references, and presenting structured *yoga* protocols suitable for pediatric stages.
Instructions to Students (First 20 Minutes): Teacher will explain the importance of developmental-stage-based yoga routines in pediatric care. Students will be divided into groups and assigned one of three categories: infants, toddlers, or school-age children. Each group will review *Siddha*-based and scientific literature and begin preparing posters and compilations that illustrate posture appropriateness, goals, and safety for their assigned age group.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will complete critical reading of selected materials on age-specific *yoga* benefits and compile a protocol sheet including objectives, key postures, and health outcomes. They will create a practical poster summarizing yoga applications for their assigned age group—highlighting flexibility, strength, concentration, and memory support elements.
Step – 02 (Next 40 Minutes): Each group will present and demonstrate their age-appropriate *yoga* routine using the poster as a guide. Demonstrations will emphasize safety, alignment, and developmental suitability. Students will also share brief reflections on integrating these practices in *Siddha pediatric* care, daycare centers, or school wellness programs.
Assessment Methods (Final 20 Minutes):Teacher will assess the posters and compilation sheets for clarity, content accuracy, and relevance. Critical reading papers will be reviewed for depth of understanding. Presentation performance and demonstration quality will also be evaluated, with peer review incorporated to assess teamwork, communication, and creativity in designing age-specific *Siddhar Yogic* practices.

Practical Training 15.9 : Student Symposium on *Yoga* as a Preventive Tool in Pediatric Health

Total Duration of the Activities: 2 Hours
This practical session allows students to lead a seminar and symposium exploring the use of *Yoga* as a preventive health tool in children. Topics include prevention of respiratory infections, support for digestive health, promotion of mental resilience, enhancement of pediatric immunity, and development of lifestyle discipline. Students will work in teams to deliver evidence-based presentations supported by *Siddha Yogic* philosophy and modern health insights. Emphasis will be placed on applying *Yoga* to everyday pediatric wellness and public health models.
Instructions to Students (First 20 Minutes):Teacher will introduce the session objectives and assign each group one of five key themes: respiratory infection prevention, digestive wellness, mental health regulation, pediatric immunity enhancement, and *yoga* for lifestyle discipline. Students will prepare presentations using classical *Siddha texts*, scientific references, and practical pediatric care examples for seminar discussion.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Each group will conduct a mini-seminar presentation on their assigned topic. They will explain how specific *Yoga* practices contribute to preventive pediatric care, integrating *Siddha* theories of *Udal kattugal, Uyir thathukkal,* and seasonal routines. Visual aids, case reflections, and simplified modules for parent-child wellness will be included.
Step – 02 (Next 40 Minutes): Following the seminar, students will participate in a symposium discussion, addressing interconnections between the themes. They will collectively propose how a structured *Siddha Yogic* routine can be implemented in pediatric outpatient care, schools, and home-based child health programs. Discussions will focus on feasibility, community education, and integrative care planning.

Assessment Methods (Final 20 Minutes):Teacher will evaluate each group's presentation using a presentation rubric covering content accuracy, coherence, relevance, and integration of *Siddha* and modern perspectives. Peer assessment will reflect on clarity, engagement, and teamwork. A brief viva voce will follow, where each student answers a question linking *Yoga* practice to a specific pediatric preventive outcome.

Practical Training 15.10 : Age-Appropriate *Siddhar Yogic* Practices for Pediatric Development and Academic Support

Total Duration of the Activities: 2 Hours
This session focuses on identifying and demonstrating age-appropriate *Siddhar Yogic* routines tailored to infants, toddlers, and school-age children. Students will explore how yoga can support flexibility, physical strength, cognitive growth, and behavioral discipline across developmental stages. Emphasis will be placed on posture selection, safety, and academic performance support through focused breathing and alignment. The session involves creating visual posters, compiling references, and presenting structured yoga protocols suitable for pediatric stages.
Instructions to Students (First 20 Minutes): Teacher will explain the importance of developmental-stage-based yoga routines in pediatric care. Students will be divided into groups and assigned one of three categories: infants, toddlers, or school-age children. Each group will review *Siddha*-based and scientific literature and begin preparing posters and compilations that illustrate posture appropriateness, goals, and safety for their assigned age group.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will complete critical reading of selected materials on age-specific *yoga* benefits and compile a protocol sheet including objectives, key postures, and health outcomes. They will create a practical poster summarizing *yoga* applications for their assigned age group—highlighting flexibility, strength, concentration, and memory support elements.
Step – 02 (Next 40 Minutes): Each group will present and demonstrate their age-appropriate yoga routine using the poster as a guide. Demonstrations will emphasize safety, alignment, and developmental suitability. Students will also share brief reflections on integrating these practices in *Siddha* pediatric care, daycare centers, or school wellness programs.
Assessment Methods (Final 20 Minutes): Teacher will assess the posters and compilation sheets for clarity, content accuracy, and relevance. Critical reading papers will be reviewed for depth of understanding. Presentation performance and demonstration quality will also be evaluated, with peer review incorporated to assess teamwork, communication, and creativity in designing age-specific *Siddhar Yogic* practices.

Experiential learning Activity

Experiential-Learning 15.1 : Foundations and Practice of *Siddhar Yogam* in Pediatric Care

Total Duration of the Activities: 3 Hours
This experiential workshop introduces students to the philosophical and practical applications of *Siddhar Yogam* in pediatric care. Led by a *Siddhar Yogam* practitioner, the session explores the foundational *principles of Siddhar Yogam* and its relevance to humor balance (Vali, Azhal, Iyyam), child development, and health maintenance. Students will engage in guided practice of selected postures, *Pranayama, and mindfulness* techniques adapted for children. The session fosters understanding of how *Siddha Yoga* enhances physical, emotional, and mental well-being, and its utility in preventive and therapeutic pediatric strategies.

Instructions to Students (First 20 Minutes): Teacher will provide an introduction to *Siddha Yoga* philosophy and its role in maintaining humor balance in children. An overview of pediatric-appropriate *Yoga* practices to be learned will be outlined. Safety, child-specific adaptations, and the structure of the session will be explained.
Students' Activities
Step – 01 (70 Minutes): Students will participate in guided *Siddha Yoga* practices including postures and breathing exercises demonstrated by the practitioner. The focus will be on physical benefits such as posture correction, lung function, and relaxation, with modifications for age and developmental appropriateness.
Step – 02 (70 Minutes): Students will reflect in small groups on how *Siddha Yoga* promotes physical growth, emotional regulation, and cognitive focus in children. They will discuss ways to adapt techniques for pediatric conditions like anxiety, ADHD, asthma, or obesity and present ideas for school or home implementation.
Assessment (Final 20 Minutes): Each student will be observed performing selected *Yoga* techniques and will undergo a short practical viva discussing their understanding of *Siddha Yoga's* role in pediatric care. Peer and self-assessments will gauge clarity, alignment, and reflection on the application of learned practices.

Experiential-Learning 15.2 : *Siddha Yoga* Practices for Enhancing Digestive Health in Children

Total Duration of the Activities: 3 Hours
This experiential session trains students in the application of *Siddha Yoga* techniques and dietary principles to support digestive health in children. Faculty will demonstrate selected *Yoga* postures such as *Pavanamuktasana, Bhujangasana, and Vajrasana,* explaining their physiological effects on digestion, gut motility, and abdominal muscle relaxation. Students will practice these postures with guided alignment and breath coordination. The session will also introduce Pranayama for bloating relief and digestive efficiency. Students will collaborate to create child-friendly Yoga routines that align with *Siddha* dietary advice for preventive gut care.
Instructions to Students (First 20 Minutes): Teacher will explain common pediatric digestive problems and *Siddha* concepts such as *'Udal Thathukkal'* and *'Annavaha Srotas'*. Demonstration of postures and breathing exercises will follow, highlighting their relevance to digestion. Instructions will also include how to combine *Yoga* routines with gut-friendly *Siddha* dietary practices.
Students' Activities
Step – 01 (70 Minutes): Students will practice the demonstrated postures and *Pranayama* under supervision, focusing on alignment, abdominal compression, and breathing rhythm. Emphasis will be on techniques that relieve bloating, support peristalsis, and calm the digestive tract.
Step – 02 (70 Minutes): In teams, students will design a simple daily *Yoga* routine for improving digestion in school-age children. They will integrate *Siddha* dietary guidelines and prepare a basic illustrated guide to educate parents on home implementation of the routine.
Assessment (Final 20 Minutes): Students will demonstrate selected postures and explain the digestive benefits using *Siddha* physiological concepts. Evaluation will include technique accuracy, peer explanation clarity, and relevance of dietary integration. Teacher will use a checklist and short oral review to complete the assessment.

Experiential-Learning 15.3 : *Siddha Yoga* Practices for Pediatric Musculoskeletal Strength and Flexibility

Total Duration of the Activities: 3 Hours
This experiential session introduces students to *Siddha*-based *Yoga* practices that promote healthy musculoskeletal development in children. The session begins with a faculty-led demonstration of gentle yet effective *Yoga postures* that enhance bone density, muscle strength, coordination, balance, and flexibility. Students will then engage

in supervised practice focusing on correct posture, body alignment, and injury prevention. Reflection and group discussion will explore how these practices can be tailored to suit various pediatric developmental stages and prevent common musculoskeletal disorders in growing children.
Instructions to Students (First 20 Minutes): Teacher will present an overview of the importance of musculoskeletal health in pediatrics and demonstrate key *Yoga* postures beneficial for bone strength, muscular endurance, and joint flexibility. Safety guidelines and anatomical considerations for pediatric age groups will be emphasized.
Students' Activities
Step – 01 (70 Minutes): Students will practice Yoga postures such as *Tadasana, Virabhadrasana, and Bhujangasana* under supervision, focusing on strength-building, posture correction, and motor control. Emphasis will be on breathing coordination and endurance building with proper body mechanics.
Step – 02 (70 Minutes): Students will perform flexibility and balance-enhancing postures including *Trikonasana, Vrikshasana, and Paschimottanasana*. Practice will highlight safe stretching, coordination, and strategies to prevent injury in pediatric populations. Students will exchange peer feedback on alignment and control.
Assessment (Final 20 Minutes): Each student will demonstrate a selection of learned postures and articulate their therapeutic relevance. Teacher will assess using a checklist focused on posture accuracy, form, and coordination. Peer observation and a short viva will evaluate understanding of the benefits and pediatric adaptations of each *Yoga practice.*

Experiential-Learning 15.4 : *Siddhar Yogam* Techniques to Enhance Immunity in Children

Total Duration of the Activities:3 Hours
This hands-on session trains students in *Siddha Yoga* techniques that support pediatric immune enhancement. The session begins with a demonstration of selected postures, *Pranayamam (e.g.,Pooragam, Resagam),* and relaxation strategies that improve physiological defenses. Students will practice these techniques under supervision, focusing on body alignment, breathing rhythm, and integration with mental focus. Discussions will connect *Siddha* concepts of immunity with energy flow and modern immune physiology. The goal is to promote holistic, child-appropriate immune support through mindful movement and breathwork.
Instructions to Students (First 20 Minutes): Teacher will explain the *Siddha* and physiological basis of immunity and demonstrate a series of *Yoga postures* and breathing exercises selected for pediatric immune enhancement. Instructions will include safety modifications, posture alignment, and expected therapeutic outcomes for children.
Students' Activities
Step – 01 (70 Minutes): Students will practice postures and breathing techniques that support immune health, such as those enhancing lung function, blood circulation, and vitality. Focus will be on consistency in breath coordination and energy awareness within each movement.
Step – 02 (70 Minutes): Students will engage in guided relaxation and mindfulness techniques (e.g., Yogic body awareness, visual meditation) and reflect on their role in stress reduction and immune regulation. Peer feedback will be used to share experiences and optimize technique.
Assessment (Final 20 Minutes): Each student will demonstrate one posture and one breathing or relaxation technique. Assessment will include practical observation, peer evaluation, and a viva on how *Siddha* Yoga supports pediatric immunity through physiological and energetic mechanisms.

Experiential-Learning 15.5 : Mindfulness and *Pranayamam* Techniques for Pediatric Calmness

Total Duration of the Activities: 3 Hours

This experiential learning session introduces students to practical mindfulness and *Pranayamam* techniques tailored for pediatric application. Through faculty demonstration and supervised practice, students will learn calming breath methods such as *Nadi Sodhanai* (alternate nostril breathing), *Pooragam, Resagam,* and mindfulness strategies like guided visualization and body scan meditation. These practices are contextualized for managing hyperactivity, anxiety, and emotional dysregulation in children. Students will reflect on physiological and psychological responses, discuss applications, and demonstrate learned skills.
Instructions to Students (First 20 Minutes): Teacher will explain the psychological and physiological benefits of breathing and mindfulness techniques for children. Demonstrations of *Nadi Sodhanai, Pooragam, Resagam,* and simple mindfulness exercises will be provided. Students will receive guidance on posture, breath regulation, child-safe adaptations, and therapeutic goals.
Students' Activities
Step – 01(70 Minutes): Students will practice the demonstrated breathing exercises under supervision. Emphasis will be on controlled inhalation and exhalation, body awareness, relaxation response, and safe positioning for pediatric application.
Step – 02 (70 Minutes): In groups, students will engage in mindfulness exercises including guided imagery and body scan techniques. They will reflect on how these practices induce calmness and share feedback with peers about their personal relaxation experiences and potential for use in pediatric settings.
Assessment (Final 20 Minutes):Each student will demonstrate one breathing technique and one mindfulness strategy, explaining their use in pediatric behavioral support. Teachers will evaluate based on technique accuracy, clarity of explanation, and pediatric relevance. Peer reviews and a short viva will support formative assessment.

Experiential-Learning 15.6 : *Siddha Yoga* Interventions for Pediatric Behavioral Disorders

Total Duration of the Activities: 4 Hours
This hands-on workshop provides students with practical skills in applying *Siddha Yoga* for managing pediatric behavioral disorders such as Attention-Deficit/Hyperactivity Disorder (ADHD), anxiety, and conduct disorders. Through demonstrations, students will learn child-friendly *Yoga* postures and breathing techniques like *Balasana, Vajrasana, Nadi Shodhana, and Bhramari.* They will practice these techniques under guidance, simulate *Yoga* sessions for children, and design personalized therapy sequences based on case profiles. Emphasis is placed on safety, communication, posture adaptation, and behavioral goal-setting to foster emotional regulation and positive development.
Instructions to Students (First 20 Minutes): Teacher will demonstrate therapeutic Yoga postures, *Pranayama,* and mindfulness practices suitable for children with behavioral challenges. Students will be instructed on safe modifications, behavioral therapy goals, and effective interaction strategies for pediatric application.
Students' Activities
Step – 01 (70 Minutes): Students will practice key *Siddha Yoga* techniques under supervision, focusing on form, safety, and purpose. Techniques such as *Balasana, Vajrasana, Nadi Shodhanai,* and *Bhramari* will be applied in the context of hyperactivity, attention difficulties, and emotional calming.
Step – 02 (70 Minutes): In small teams, students will conduct role-play simulations of *Yoga* sessions for pediatric behavioral cases. Emphasis will be on therapist-child communication, engagement strategies, posture cues, and modifying techniques for individual behavioral needs.
Step – 03 (60 Minutes): Each group will design a personalized *Yoga* therapy plan for a child with a specific behavioral disorder. The plan will include chosen postures, breathing exercises, session duration, frequency, expected outcomes, and safety precautions.
Assessment (Final 20 Minutes):Students will demonstrate a selected segment of their therapy plan in front of peers and faculty. Evaluation will be based on proper

technique, ability to adapt *Yoga* practices to behavioral needs, communication clarity, and therapeutic rationale. Feedback will be gathered through observation, role-play performance, and a practical viva.

Experiential-Learning 15.7 : *Siddha Yoga* for Enhancing Focus and Memory in School-Age Children

Total Duration of the Activities: 3 Hours

This hands-on workshop focuses on *Siddha Yoga* techniques aimed at improving concentration, memory, and cognitive abilities in school-going children. Students will observe and practice key yogic postures including *Vrikshasana, Padmasana, and Surya Namaskar,* alongside *Pranayama* methods like *Nadi Shodhanai*. Faculty will guide students in adapting these practices for school settings, ensuring safety and engagement. Students will simulate *Yoga* instruction and design daily routines suitable for academic environments, integrating learning goals with physical and mental well-being.

Instructions to Students (First 20 Minutes): Teacher will demonstrate *Yoga* postures and breathing exercises proven to enhance cognitive function. Students will be briefed on session goals, child-appropriate adaptations, and structuring a safe, engaging *Yoga* session for school-age children. Guidelines for instructional clarity and posture correction will be shared.

Students' Activities

Step – 01 (40 Minutes): Students will practice the demonstrated postures and breathing exercises under faculty supervision. Focus will be on proper alignment, breath coordination, and age-appropriate modifications. Feedback will be given on technique and flow to ensure readiness for instruction delivery.

Step – 02 (40 Minutes): In small teams, students will simulate conducting a 15-minute *Yoga* session designed for a classroom or school setting. Emphasis will be on clear instruction, child-friendly engagement strategies, time management, and safety monitoring. Role-play and peer evaluation will support learning.

Step – 03 (60 Minutes): Students will collaboratively design a daily *Siddha Yoga* routine targeting academic performance. The plan will include selected postures, breathing techniques, duration, frequency, and cognitive outcomes such as increased attention span, memory retention, and reduced stress.

Assessment (Final 20 Minutes): Teacher will evaluate student performance through demonstration of postures, clarity of their routine design, and articulation of expected cognitive benefits. Practical viva will assess understanding of *Yoga's* impact on mental development. Peer feedback will support reflection and instructional confidence.

Experiential-Learning 15.8 : Integrative *Siddha* Yoga and Diet Planning for Pediatric Wellness

Total Duration of the Activities: 4 Hours

This simulation-based session enables students to apply *Siddha* Yoga practices alongside conventional pediatric treatments in real-life case contexts. Through teacher-guided demonstrations and collaborative planning, students will identify *Yoga* postures, breathing techniques, and *Siddha*-based dietary strategies that enhance recovery and prevention in conditions like pediatric asthma, indigestion, and anxiety. They will develop child-centered integrative care routines and simulate parent education sessions to support long-term wellness. The activity fosters preventive care thinking, individualized planning, and interdisciplinary collaboration.

Instructions to Students (First 20 Minutes): Teacher will explain how to integrate *Siddha Yoga* postures and diet with conventional pediatric treatments. Guidelines will be given for balancing physical and *dietary therapies* for conditions such as respiratory illness, digestive imbalance, and emotional stress in children. Students will be assigned case scenarios and oriented to the simulation format.

Students' Activities
Step – 01 (70 Minutes): Students will analyze assigned pediatric cases, identify symptoms and conventional treatments, and select appropriate Yoga postures, breathing techniques *(e.g., Nadi Shodhana, Surya Namaskar)*, and *Siddha*-based dietary elements *(e.g., pathiyam).* They will prepare a summary of integrative care components for each case.
Step – 02 (70 Minutes): Under supervision, students will demonstrate selected Yoga techniques applicable to their case. Working in groups, they will co-develop an integrative *Yoga-diet* routine tailored to the case's clinical context. Focus will be on harmony between therapeutic movement, dietary inputs, and pediatric safety.
Step – 03 (60 Minutes): Students will design a preventive *Siddha* Yoga care protocol for general school-age children, incorporating a weekly routine of postures, breathing, and diet suggestions. They will simulate a parental counseling session to communicate benefits, practical implementation strategies, and health education messages.
Assessment (Final 20 Minutes): Students will present their case-based preventive routine and demonstrate selected components. Faculty will assess posture accuracy, integration of Yoga and diet, case relevance, and communication clarity. Peer assessment will focus on group collaboration and educational delivery during the simulation.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - This 25-mark DOPS-based modular assessment evaluates students' ability to demonstrate core Siddhar Yogam techniques for pediatric health. Students will be observed performing age-appropriate yoga postures, breathing practices, and explaining their preventive and therapeutic relevance in musculoskeletal, digestive, respiratory, and cognitive pediatric wellness using Siddha philosophy. Instructions to Students: Students will demonstrate selected yoga postures, breathing exercises, or lifestyle-based Siddhar yogam interventions suitable for children. Each student must explain the health objective, posture mechanism, and safety considerations. Be precise and confident in movements and explanations. Students will be observed directly by a teacher. No reference materials allowed. Instructions to Teachers: Observe each student performing pediatric Siddhar Yogam techniques aligned with syllabus components. Evaluate posture accuracy, breathing technique, therapeutic appropriateness, student confidence, and explanation clarity. Use a standardized DOPS checklist to assign scores. Provide brief verbal feedback to guide improvement in technique, application, and safety awareness. Mark Distribution : Marks are distributed across four observation-based stations. Station 1 evaluates demonstration of pediatric yoga postures for physical growth or flexibility (7 marks). Station 2 assesses breathing exercises for respiratory or mental health support (6 marks). Station 3 examines preventive *Siddha*-yoga lifestyle explanation (6 marks). Station 4 tests *Siddha* integration and child safety awareness (6 marks). Total – 25 Marks. & Section – B.This 25-mark assessment evaluates students' ability to critically interpret evidence-based articles related to pediatric Siddha Yoga, and deliver structured presentations on integrating yoga into pediatric emotional, behavioral, and preventive care. Students must synthesize textual insights, demonstrate theoretical clarity, and communicate holistic strategies aligning with Siddha-Yoga integrative wellness.	4

Instructions to Students: Prepare a 7-minute class presentation supported by a critical review of one research article or case study. Highlight the relevance of *Siddha* Yoga, therapeutic impact, and pediatric applicability. Bring a printed summary of key findings. No digital devices allowed during the viva segment.
Instructions to Teachers : Assign students diverse topics across sections module 15. Provide a list of peer-reviewed papers or allow article selection with prior approval. During evaluation, use a rubric assessing conceptual clarity, *Siddha* integration, presentation structure, and response to viva questions. Encourage insights linking diet, yoga, and behavioral outcomes in children.
Mark Distribution : The 25 marks are distributed across five components. Critical Reading Summary and Insights carries 8 marks, evaluating comprehension and synthesis of selected literature. Presentation Content and Clarity is allotted 7 marks. Application to Pediatric *Siddha* Yoga receives 5 marks, while Viva and Communication Skills and Creativity in Integration carry 3 and 2 marks respectively.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).

Module 16 : ???????????? ???? ???????????? ??????? ????? ??????? Kuzhanthaigalin Noi Nilaigalukkana Siddhar Yogam Muraigal (Therapeutic Siddhar Yogam for Pediatric Disorders)

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

Explain therapeutic Siddhar Yogam techniques for pediatric neurological disorders.
Describe breathing exercises for asthma, bronchitis, and respiratory care.
Apply Siddhar Yogam for gastrointestinal and immune-related pediatric issues.
Design customized Siddhar Yogam routines for special-needs children.
Discuss Yoga’s role in managing pediatric stress, pain, and anxiety.
Evaluate clinical outcomes using Siddhar Yogam case studies in pediatrics.

M 16 Unit 1 ?????? ??????? ???? ???????????? ???????????? ??????? ??? ??????? – Narambu matrum Valarchi Kuraipaattu Noikalukkana Siddhar Yoga Muraigal -Siddha Yoga for Neurological and Developmental Disorders

16.1.1 Yogam for Neurological Health in Children – Nervous system strengthening, epilepsy support, developmental delay management, brain function stimulation, neurotherapeutic breathing and postures.
16.1.2 Therapeutic Yogam for Autism Spectrum Disorder (ASD) – Social interaction enhancement, communication support, emotional stability, attention span improvement, ASD-specific Siddha Yoga routines.
16.1.3 Yogam for Managing ADHD in Children – Hyperactivity reduction, attention control, impulsivity management, focus enhancement, mindfulness-based Siddha Yoga techniques.
16.1.4 Yogam for Speech and Cognitive Delays – Oxygenation improvement, brain function enhancement, speech development support, memory boosting, concentration-focused practices.
16.1.5 Therapeutic Use of Yogam in Behavioral and Emotional Disorders – Mood regulation, anxiety relief, depression management, calming posture routines, emotional well-being enhancement.

References: 9,103

3A	3B	3C	3D	3E	3F	3G
CO2,CO4,CO6	Analyze Siddha Yoga postures and breathing for managing pediatric neurological, developmental, and behavioral disorders.	1	Lecture	CAN	Know	D,PER,L &GD
CO2,CO4,CO6	Apply Siddha Yoga to enhance cognition, emotional balance, attention, and social interaction in children.	1	Lecture	CAP	Knows-how	D,CBL,L &PPT
CO3,CO4,CO6	Demonstrate therapeutic *yoga* practices suitable for managing symptoms of Autism Spectrum Disorder (ASD) in children.	2	Practical Training 16.1	PSY-MEC	Knows-how	SIM,D,TBL
CO3,CO4,CO6	Demonstrate *yoga* practices to regulate attention, hyperactivity, and impulse control in children with Attention-Deficit Hyperactivity Disorder (ADHD).	2	Practical Training 16.2	PSY-MEC	Knows-how	TBL,D,SIM
CO3,CO4,CO6	Demonstrate *yoga* practices to improve speech development and cognitive skills in children.	2	Practical Training 16.3	PSY-MEC	Knows-how	TBL,SIM,D
CO3,CO6,CO7	Apply *Yoga* techniques to support pediatric speech and cognitive growth	3	Experiential-Learning 16.1	PSY-GUD	Does	TBL,D,SIM
CO3,CO4,CO7	Demonstrate *Yoga*-based interventions adapted for children with Autism Spectrum	3	Experiential-	PSY-	Does	SIM,RP,

	Disorder (ASD)		Learning 16.2	GUD		D,TBL
CO1,CO3,CO5	Practice *Yoga* techniques that support speech and cognitive development	3	Experiential-Learning 16.3	PSY-GUD	Know	SIM,TBL,C_L

M 16 Unit 2 ????? ??????? ????? ???????? ????? ??????????? ??????? ??? ??????? – Suvasa matrum Iruthaya Irathaasaya Nalathirkana Siddhar Yoga Muraigal -Siddha Yoga for Respiratory and Cardiovascular Health

16.2.1 Yogam for Asthma and Breathing Difficulties – Controlled breathing exercises, lung function improvement, asthma prevention, airway strengthening, Siddha respiratory regulation.
16.2.2 Therapeutic Yogam for Pediatric Bronchitis – Airway clearance, inflammation reduction, posture-based respiratory support, gentle movement therapy, Siddha bronchial relief practices.
16.2.3 Breathing Exercises for Strengthening Respiratory Health – Lung capacity enhancement, oxygenation improvement, infection prevention, breath-based immunity support, long-term respiratory wellness.
16.2.4 Yogam for Cardiovascular Health in Children – Circulatory stimulation, heart function regulation, blood pressure balance, gentle cardiac postures, Siddha cardiovascular alignment.
16.2.5 Therapeutic Yogam for Pediatric Respiratory Disorders – Integrative asthma and bronchitis care, Yoga-medical synergy, clinical outcome enhancement, recovery acceleration, Siddha breathing support.

References: 23,30,76,105,135

3A	3B	3C	3D	3E	3F	3G
CO2,CO4,CO6	Analyze pranayamam techniques for improving lung function and managing asthma, bronchitis in children.	1	Lecture	CAN	Know	CBL,D,L&GD
CO1,CO3,CO5	Apply Siddha Yoga postures and breathing to enhance lung function and respiratory health in children.	1	Lecture	CAP	Knows-how	BL,CBL,L&GD
CO2,CO4,CO6	Evaluate integrative Yoga and conventional therapies for enhancing pediatric respiratory and cardiovascular health outcomes.	1	Lecture	CE	Knows-how	L&GD,CBL

CO3,CO4,CO6	Demonstrate *Siddhar Yogic* practices that enhance cardiovascular function in children.	2	Practical Training 16.4	PSY-MEC	Knows-how	D,SIM
CO4,CO6,CO7	Evaluate and present *Siddhar Yogic* and breathing interventions for pediatric respiratory conditions.	2	Practical Training 16.5	PSY-MEC	Knows-how	SY,JC,LS
CO3,CO5,CO7	Demonstrate *Yoga* techniques that support heart health in children	3	Experiential-Learning 16.4	PSY-GUD	Does	PL,W,D,PAL
CO2,CO3,CO4	Demonstrate and design *Yoga* therapy for pediatric respiratory health	4	Experiential-Learning 16.5	PSY-GUD	Does	D,PAL,SIM

M 16 Unit 3 ???? ????? ??????? ??????? ????????????? ?????????????? ??????? ??? ??????? – Seerna Mandala noigal matrum Noiethirppu Arokkiyathirkana Siddhar Yoga Muraigal -Siddha Yoga for Digestive and Immunological Health

16.3.1 Yogam for Digestive Disorders in Pediatrics – Indigestion, bloating reduction, abdominal discomfort control, digestive flow enhancement, Siddha postural and breathing support.
16.3.2 Therapeutic Yogam for Gastrointestinal Conditions – Constipation management, colic relief, bowel regulation, gastrointestinal balance, pediatric abdominal Yoga techniques.
16.3.3 Yogam for Enhancing Pediatric Immunity – Circulatory improvement, breath capacity expansion, energy flow activation, immune defense strengthening, infection resistance support.
16.3.4 Yogam for Autoimmune Disorders in Pediatric Care – Juvenile arthritis management, pediatric lupus support, inflammation reduction, immune modulation, calming therapeutic routines.
16.3.5 Yogam for Allergies and Immune Regulation – Allergy symptom relief, detoxification practices, respiratory improvement, immune response balance, Siddha-based allergy management.

References: 8,12,21

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO5	Analyze Siddha Yoga postures and breathing in managing pediatric digestive,	1	Lecture	CAN	Knows-	PL,CBL,

	gastrointestinal, and immune-related disorders.				how	DIS
CO3,CO4,CO6	Demonstrate *Siddhar Yogic* practices that support digestive and gastrointestinal health in children.	2	Practical Training 16.6	PSY-MEC	Know	SIM,D
CO4,CO6,CO7	Demonstrate *yoga* practices that support immune strength and disease prevention in children.	2	Practical Training 16.7	PSY-MEC	Knows-how	SIM,TBL,CBL,D
CO3,CO5,CO7	Adapt *Yoga* practices to support functional development in special needs children	4	Experiential-Learning 16.6	PSY-ADT	Does	CBL,D,PL
CO3,CO4,CO5	Demonstrate *Yoga* techniques that promote emotional regulation in children	3	Experiential-Learning 16.7	PSY-GUD	Know	SIM,D
CO1,CO3,CO5	Apply therapeutic Yoga to boost immunity, aid digestion, and manage colic, constipation, and inflammation in children.	1	Lecture	CAP	Know	CBL,D,L&GD

M 16 Unit 4 ??????? ????????????? ??????? ??? ???????? ???????????? – Kuzhanthai Maruthuvathil Siddhar yogam maruththuva Seyalmuraigal -Practical Application of Siddha Yoga in Pediatric Care

16.4.1 Designing Yogam Routines for Children with Special Needs – Posture modification, breathing adaptation, developmental disability support, motor skill enhancement, safe pediatric Yoga planning.
16.4.2 Yogam for Pain Management in Pediatric Care – Non-invasive pain relief, musculoskeletal support, chronic condition management, mobility improvement, relaxation techniques.
16.4.3 Therapeutic Yoga for Stress and Anxiety in Children – Emotional resilience building, anxiety control, calming breathwork, mindfulness application, pediatric psychological support.
16.4.4 Yogam and Mind-Body Integration for Pediatric Health – Physical-mental coordination, breathing-movement synchronization, emotional regulation, vitality improvement, holistic child development.
16.4.5 Case Studies and Evidence-Based Practices in Siddha Yoga for Pediatrics – Clinical outcomes, condition-specific applications, asthma and anxiety case reports, research validation, therapeutic success examples.

References: 21,30,31,76,92,105,135

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO7	Demonstrate *yoga* techniques for non-invasive pediatric pain relief and mobility enhancement.	2	Practical Training 16.8	PSY-MEC	Know	D,SIM,TBL
CO4,CO6,CO7	Evaluate scientific publications and case studies on *Siddha Yogic* applications in pediatric care.	2	Practical Training 16.9	CE	Knows-how	PAL,SY,JC
CO4,CO6,CO7	Demonstrate therapeutic *yoga* techniques that reduce stress and support mind-body harmony in children.	2	Practical Training 16.10	PSY-MEC	Knows-how	TBL,BL,D
CO1,CO3,CO4	Analyze case outcomes and evidence for *Siddha Yoga* in pediatric care	3	Experiential-Learning 16.8	CAN	Know	DIS,CBL,SDL
CO2,CO4,CO6	Design adapted Siddha Yoga routines to improve motor skills in children with developmental or physical disabilities.	1	Lecture	CS	Knows-how	L&GD
CO1,CO3,CO5	Describe therapeutic Yoga for pediatric pain relief, stress reduction, and emotional well-being using non-invasive techniques.	1	Lecture	CC	Knows-how	L&GD,D
CO2,CO4,CO6	Evaluate case studies and evidence supporting Siddha Yoga for asthma, anxiety, delays, and musculoskeletal issues.	1	Lecture	CE	Knows-how	JC,CBL,L&GD

Practical Training Activity

Practical Training 16.1 : Therapeutic *Siddhar Yoga* Practices for Autism Spectrum Disorder (ASD)

Total Duration of the Activities:2 Hours

This practical session introduces students to therapeutic *Siddhar Yogic* practices designed to support children with Autism Spectrum Disorder (ASD). The session focuses on *yoga* techniques that promote body awareness, sensory integration, emotional regulation, social connection, and neurological balance. Students will explore *Siddhar Yogic* strategies tailored to address communication difficulties, hyperactivity, repetitive behaviors, and anxiety, providing a holistic and non-invasive therapy model for pediatric ASD care.

Instructions to Students (First 20 Minutes): Teacher will introduce the clinical features of ASD and explain how *Siddhar Yogic* practices can improve attention, coordination,

and emotional modulation. Students will be briefed on the principles of sensory-friendly *yoga* routines, child-centered guidance, and therapeutic touch control. Roles will be assigned for simulated demonstration, and safety considerations will be emphasized.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will learn and perform a structured set of therapeutic *yoga* practices suitable for children with ASD. These techniques will focus on slow movement, rhythmic breathing, grounding postures, and calm-inducing positions. Emphasis will be placed on consistency, minimal instruction, and sensory-sensitive delivery to match the unique needs of ASD children. Teacher will supervise and provide corrections on technique and engagement.
Step – 02 (Next 40 Minutes): Students will work in small groups to develop a personalized *Siddhar Yogic* routine for a hypothetical child with ASD, detailing session flow, goals, and observed outcomes. Each group will simulate a short session through role-play, demonstrate how yoga can be used as a behavioral and therapeutic tool, and explain how to integrate the practice into daily pediatric care.
Assessment Methods (Final 20 Minutes):Teacher will assess each group using a structured checklist for posture accuracy, therapeutic appropriateness, and interaction techniques. Peer assessment will evaluate teamwork and clarity of the simulated session. A short practical viva will test understanding of ASD symptoms, the rationale for *yoga* selection, and the integration of *Siddhar Yogam* into autism care programs.

Practical Training 16.2 : Therapeutic *Siddhar Yogam* for Managing Attention-Deficit Hyperactivity Disorder (ADHD) in Children

Total Duration of the Activities: 2 Hours
This practical session focuses on therapeutic *Siddhar Yoga* practices for managing Attention Deficit Hyperactivity Disorder (ADHD) in children. Students will explore how yoga can enhance focus, reduce impulsivity, and promote calmness and self-regulation. Techniques will include movement-based postures for energy channeling, structured breathing for mental stillness, and routines designed to improve executive function, attention span, and emotional control within a *Siddha*-integrated care framework.
Instructions to Students (First 20 Minutes): Teacher will introduce the symptoms and behavioral patterns of ADHD in children. Students will be guided to understand how specific *yoga* techniques can help manage hyperactivity and attention challenges. Teacher will explain pacing, posture selection, and safety strategies suitable for children with behavioral sensitivity. Groups will be formed for practice and role simulation.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will practice a set of *yogic* techniques suitable for ADHD under teacher supervision. These practices will focus on energy regulation, postural control, rhythmic movement, and focused breathing to encourage mental stillness. The sequence will be adapted for short attention spans, incorporating repetition, breath-body synchrony, and calm transitions.
Step – 02 (Next 40 Minutes): In teams, students will design a daily yoga routine for a child with ADHD, specifying session duration, posture order, and supportive strategies. Each team will conduct a simulated demonstration of the routine, showing how yoga can be embedded into school or home settings for attention regulation. They will reflect on behavioral goals, child engagement methods, and outcome expectations.
Assessment Methods (Final 20 Minutes): Teacher will use a checklist to assess students on alignment, therapeutic intention, and engagement method during the *yoga* routine. Peer assessment will reflect creativity, teamwork, and clarity of instruction. A short practical viva will evaluate students' understanding of ADHD symptoms, *yoga* rationale, and *Siddhar Yogic* contribution to behavioral management in pediatric care.

Practical Training 16.3 : *Siddhar Yogam* for Enhancing Speech and Cognitive Function in Children

Total Duration of the Activities: 2 Hours

This practical session trains students in *Siddhar Yogic* techniques that support speech clarity, articulation, cognitive development, and neurological stimulation in children with developmental delays. Students will learn and apply *yoga* sequences that activate the oral musculature, cranial nerves, auditory and visual processing, and prefrontal cognition, contributing to holistic therapeutic outcomes for speech and learning difficulties.

Instructions to Students (First 20 Minutes): Teacher will explain the anatomical and developmental factors behind speech and cognitive delays in pediatric cases. Students will be introduced to *yogic* postures, breathing methods, and facial practices that enhance neuro-linguistic coordination, attention, and verbal expression. Teacher will guide posture safety, pacing, and child-centered adaptations.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will perform a set of *yoga* techniques that stimulate the brain-speech axis through postures involving head-neck coordination, breathing rhythms, and seated concentration exercises. Practices will target the vocal tract, memory centers, and sensory processing. Students will be supervised for alignment, breath engagement, and response observation.

Step – 02 (Next 40 Minutes): Students will work in groups to design a *yoga* session module for a child with speech or cognitive delay. The module will include yoga postures, facial exercises, sound chanting, and breath-work tailored for language stimulation and attention enhancement. Each group will conduct a mock session with role-play and explain therapy goals and expected improvements.

Assessment Methods (Final 20 Minutes): Teacher will assess student performance using a structured checklist for technique, appropriateness, and clarity of delivery. Peer assessment will evaluate teamwork, session design, and presentation quality. A short practical viva will test students' understanding of the neurological basis of speech and cognitive delay, yoga integration, and *Siddha*-informed care strategy for developmental therapy.

Practical Training 16.4 : *Siddhar Yogam* for Supporting Cardiovascular Health in Pediatric Care

Total Duration of the Activities: 2 Hours

This practical session focuses on *Siddhar Yogic* postures and breathing techniques that promote heart health, circulatory efficiency, and emotional balance in children. The session aims to strengthen cardiovascular resilience, regulate heart rhythm, support blood flow, and foster early lifestyle discipline through safe, child-friendly yogic practices rooted in *Siddha* philosophy.

Instructions to Students (First 20 Minutes): Teacher will introduce the importance of cardiovascular health in growing children, linking it to physical activity, emotional control, and breath regulation. Students will be briefed on yogic techniques that gently stimulate the heart and circulatory system while emphasizing calmness and physical alignment. Safety, breath pacing, and modifications for pediatric age groups will be explained.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will practice a structured sequence of *Siddhar Yogic* postures and breathing techniques designed to enhance cardiac strength, lung-heart coordination, and vascular flow. Under teacher supervision, they will focus on maintaining steady breath rhythms, upright alignment, and smooth transitions to support cardiovascular engagement in a gentle, therapeutic manner.

Step – 02 (Next 40 Minutes): In small groups, students will design a *Siddhar Yogic* routine for pediatric cardiovascular health suitable for use in clinics, schools, or home settings. Each team will present and demonstrate their session, explaining how each component contributes to heart rate regulation, anxiety reduction, and blood circulation improvement. Role-play and peer feedback will be integrated.
Assessment Methods (Final 20 Minutes): Teacher will assess students using a checklist for accuracy, technique, and relevance of practices to cardiovascular health. Peer assessment will focus on the effectiveness of the designed routine and clarity in demonstration. A short practical viva will evaluate understanding of the cardiovascular effects of yoga and the role of *Siddhar Yogam* in pediatric heart wellness.

Practical Training 16.5 : Therapeutic *Siddhar Yogam* and Breathing Practices for Pediatric Respiratory Disorders

Total Duration of the Activities: 2 Hours
This practical session trains students to critically analyze, interpret, and creatively apply *Siddhar Yogic* and breathing techniques in the management of pediatric respiratory conditions such as asthma, bronchitis, and breathing difficulties. Students will explore traditional references, scientific insights, and therapeutic frameworks through journal reading, symposium discussion, and creative expression. Focus will be on respiratory strength building, breath rhythm control, and therapeutic yoga protocols aligned with *Siddha* philosophy.
Instructions to Students (First 20 Minutes):Teacher will introduce core concepts of pediatric respiratory physiology and highlight how *Siddhar Yogic* breathing techniques enhance lung function and airway regulation. Students will be divided into groups and assigned subtopics including breathing exercises, yoga for respiratory disorders, asthma, and bronchitis. Each group will receive classical *Siddha* references and modern scientific literature to guide their focused exploration and discussion.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will participate in a journal-based symposium and critical book reading session, extracting concepts, breathing sequences, and *yogic* postures used for respiratory care. Each group will prepare a creative summary or infographic, highlighting the integration of *Siddhar Yogic* tools in treating childhood respiratory illness. They will also compile a therapeutic outline or protocol based on literature.
Step – 02 (Next 40 Minutes): Groups will present their findings in a mini-symposium format and submit a creative writing piece (e.g., poem, story, child education script, or poster content) reflecting the theme of breathing and healing in children. They will critically evaluate the scientific logic and *Siddha* perspective in the applied breathing practices and therapeutic asanas used for asthma and bronchitis.
Assessment Methods (Final 20 Minutes): Teacher will assess compilations and critical reading papers for content accuracy and reference quality. Peer assessment will be used during the symposium to evaluate clarity, integration, and originality. A creative assignment rubric will score engagement, scientific relevance, and creative communication of *Siddhar Yogic* solutions for pediatric respiratory wellness.

Practical Training 16.6 : Therapeutic *Siddhar Yogam* for Pediatric Digestive and Gastrointestinal Health

Total Duration of the Activities: 2 Hours
This practical session focuses on *Siddhar Yogic* practices that aid in the prevention and management of pediatric digestive disorders such as indigestion, constipation, bloating, and poor appetite. Students will learn how to apply specific postures and breathing techniques that stimulate gastrointestinal function, regulate metabolism, and

improve gut-brain coordination, with emphasis on safe, age-appropriate routines.
Instructions to Students (First 20 Minutes): Teacher will introduce the physiological basis of digestion in children and explain how *Siddhar Yogic* practices improve gut motility, abdominal tone, and digestive fire (Agni). Students will be oriented to the importance of posture selection, breath timing, and gentle abdominal activation. Guidelines for child-friendly demonstration and group routines will be explained.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will practice a series of *Siddhar Yogic* techniques focusing on abdominal compression, spinal flexibility, and diaphragmatic breathing. These movements aim to stimulate digestion, relieve gas, support bowel function, and promote appetite. The postures will be taught with attention to pacing, pressure control, and symptom-specific adaptation.
Step – 02 (Next 40 Minutes): In teams, students will design and demonstrate a digestive health *yoga* module for children with conditions like constipation, loss of appetite, or indigestion. Each team will simulate a session plan with clear posture flow, breath guidance, and session outcomes. Role-play and guided interaction methods will be used to promote engagement and therapeutic relevance.
Assessment Methods (Final 20 Minutes): Teacher will assess students using a checklist for posture execution, breath control, and digestive system relevance. Peer assessment will review clarity of the team presentation and creativity in designing the session. A short practical viva will evaluate student understanding of gastrointestinal health and the role of *Siddhar Yogam* in pediatric digestive care.

Practical Training 16.7 : *Siddhar Yogam* for Enhancing Immunity in Children

Total Duration of the Activities: 2 Hours
This practical session trains students in *Siddhar Yogic* practices specifically designed to strengthen pediatric immunity. The focus is on activating the lymphatic system, improving circulation, regulating endocrine and respiratory function, and calming the nervous system, all of which build resilience against infections. The session also integrates *Siddha*-based seasonal and dietary preventive principles aligned with *Yogic* routines.
Instructions to Students (First 20 Minutes): Teacher will introduce the developmental aspects of the pediatric immune system and how *Siddhar Yogam* enhances innate and adaptive immune responses. Students will explore immunity-boosting *yoga* postures and pranayama based on scientific and *Siddha* evidence. Focus will be on alignment, duration, breathing pace, and child-safe adaptations. Safety guidelines and contraindications will also be discussed.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will individually learn and practice ten scientifically supported yoga postures known to boost immune function: *Tadasana, Vrikshasana, Bhujangasana, Dhanurasana, Setu Bandhasana, Matsyasana, Trikonasana, Ustrasana, Balasana, and Shavasana* with deep breathing. Each posture targets specific physiological systems like circulation, lymphatic flow, digestion, or stress reduction. Under teacher supervision, students will focus on correct alignment, breath synchronization, smooth transitions, and understanding the therapeutic role of each posture in enhancing pediatric immunity.
Step – 02 (Next 40 Minutes): Students will be grouped into small teams and asked to design an immune-boosting *yoga* sequence for pediatric use. The sequence must include a warm-up, core posture flow, breathwork, and relaxation. Each group will perform their designed routine and explain how their selected postures influence immunity, referring to *Siddha* preventive concepts such as *Vali, Azhal, Iyam balance,* and modern immunophysiology. The group will also propose real-life application

settings (e.g., schools, OPD clinics, home-based care).
Assessment Methods (Final 20 Minutes):Teacher will evaluate posture execution and session design using a structured checklist based on accuracy, breath control, and therapeutic intent. Peer assessment will score creativity, clarity, and alignment with pediatric immunity needs. A short practical viva will test understanding of the connection between *Siddhar Yogam* and immune enhancement, integrating both classical theory and modern scientific evidence.

Practical Training 16.8 : *Siddhar Yogam* for Pain Management in Pediatric Care

Total Duration of the Activities: 2 Hours
This practical session focuses on scientifically supported *Siddhar Yogic* practices for managing pain in pediatric care. The emphasis is on non-invasive techniques to support musculoskeletal stability, relieve discomfort associated with chronic pediatric conditions, enhance mobility, and promote relaxation through breath regulation and posture-based interventions. Scientific principles such as neuromuscular relaxation, endorphin modulation, and functional movement patterns are integrated with traditional *Siddha* insights.
Instructions to Students (First 20 Minutes): Teacher will introduce the neurophysiology of pediatric pain and explain how *yoga* techniques modulate pain perception, promote muscle relaxation, and enhance joint flexibility. Students will review conditions such as growing pain, postural discomfort, juvenile arthritis, and functional abdominal pain, and will be guided on posture adaptations, contraindications, and breath-based pain control techniques.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will perform a set of yoga practices that help reduce pain in children through muscle elongation, spinal decompression, joint mobility, and relaxation-based breathing. Postures will be selected for low-impact effectiveness, with emphasis on calming the nervous system and relieving tension in commonly affected areas such as the neck, lower back, knees, and abdomen. Teacher will supervise posture alignment, breath coordination, and safety.
Step – 02 (Next 40 Minutes): In small groups, students will design and demonstrate a therapeutic *yoga* module for a selected pediatric pain condition. Each team will explain their chosen postures, duration, and breath techniques, linking them to scientific mechanisms like parasympathetic activation, fascia release, and improved circulation. Simulated case presentations will be used to show practical application in OPD or school settings.
Assessment Methods (Final 20 Minutes): Teacher will assess student performance using a structured checklist for correct technique, safety, and pain relevance. Peer assessment will evaluate clarity, teamwork, and therapeutic design. A short practical viva will test understanding of the scientific rationale for *yoga* in pain relief, integration with *Siddha care*, and adaptation for pediatric use.

Practical Training 16.9 : Scientific Symposium on Evidence-Based *Siddha Yoga* Practices in Pediatric Care

Total Duration of the Activities: 2 Hours
This practical session involves a scientific symposium and journal club discussion, where students critically evaluate five scientific publications and case studies that demonstrate the effectiveness of *Siddha Yoga* practices in pediatric care. Focus will be on clinical outcomes, condition-specific protocols, and evidence-based validation for disorders such as asthma, anxiety, attention deficit, digestive disturbances, and sleep regulation. The session encourages analytical thinking and integration of traditional *Siddha* knowledge with modern research methodology.

Instructions to Students (First 20 Minutes): Teacher will introduce the session objectives and distribute five curated scientific papers/case studies on *Siddha Yoga* in pediatric conditions. Students will be grouped and assigned one publication per team. They will be guided to analyze study design, therapeutic intervention, outcomes, and scientific validity. Instructions on critical reading format and discussion flow will be provided.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Each student group will conduct a journal club-style review of their assigned publication. They will identify the pediatric condition addressed, describe the *Siddha Yogic* techniques used, and assess the methodology, results, and clinical relevance. Students will submit a critical reading summary and prepare key points for presentation, focusing on research gaps and practical implications.
Step – 02 (Next 40 Minutes): Groups will present their findings in a scientific symposium format, explaining how the discussed *Siddha Yogic* intervention contributed to therapeutic success. Cross-group discussions will be held comparing interventions for asthma, anxiety, sleep disturbance, and neurodevelopmental delays. Each group will propose how the findings could inform clinical protocols, academic curriculum, or future *Siddha*-based research models.
Assessment Methods (Final 20 Minutes): Teacher will assess each group's critical reading paper for depth of analysis, clarity, and scientific reasoning. Peer assessment will be used to evaluate discussion quality and engagement during the symposium. A short viva voce will test students' understanding of research evaluation methods, the validity of evidence-based *Siddha Yoga* applications, and their integration in pediatric clinical care.

Practical Training 16.10 : Therapeutic *Siddhar Yogam* for Stress, Anxiety, and Mind-Body Integration in Children

Total Duration of the Activities: 2 Hours
This practical session focuses on therapeutic *Siddhar Yogam* techniques that help manage stress and anxiety in children and promote mind-body integration for holistic pediatric health. The session explores calming postures, rhythmic breathing, relaxation practices, and gentle mindfulness techniques. Emphasis is placed on improving emotional regulation, nervous system balance, and psychosomatic stability, which are essential for long-term wellness in growing children.
Instructions to Students (First 20 Minutes): Teacher will introduce the psychological and physiological impact of childhood stress and anxiety and explain how *Siddhar Yogam* can regulate the autonomic nervous system and restore emotional balance. Students will be briefed on posture selection, breath pacing, and mindfulness integration. Guidelines on age-appropriate adaptations and therapeutic tone will also be explained.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will practice a series of *yoga* postures and breathing techniques focused on calming the mind and body. These may include gentle forward bends, cross-legged seated postures, supine relaxation *asanas,* and focused breathwork *(e.g., Bhramari, Anulom Vilom, Pooragam-Resagam)*. Techniques will be taught with emphasis on breath awareness, movement softness, and nervous system soothing. Students will practice under teacher guidance and reflect on relaxation responses.
Step – 02 (Next 40 Minutes): Students will work in groups to design a therapeutic yoga routine specifically targeting pediatric stress or anxiety. Each group will include warm-up, breath-based posture flow, and a closing relaxation sequence. They will simulate a 5–7 minute session for a specific case (e.g., school anxiety, sleep disturbance, social fear), explaining how the routine promotes mind-body harmony, emotional calm, and physiological recovery.
Assessment Methods (Final 20 Minutes):Teacher will assess using a checklist focused on posture technique, breath coordination, and alignment with therapeutic goals. Peer assessment will evaluate group routine design, clarity, and emotional tone. A short practical viva will test understanding of the mechanisms by which *yoga* reduces stress,

supports autonomic balance, and fosters integrated pediatric wellness in *Siddha practice*.

Experiential learning Activity

Experiential-Learning 16.1 : *Siddha Yoga* for Enhancing Speech and Cognitive Development in Children

Total Duration of the Activities: 3 Hours
This independent experiential workshop trains students in *Yoga* techniques that promote neurological function, speech clarity, and cognitive focus in children. The session begins with a demonstration of targeted postures and breathing exercises known to improve brain oxygenation and neuro-muscular coordination. Students will practice these techniques and then simulate a therapeutic *Yoga* session plan tailored for children with speech delays or cognitive challenges. Emphasis will be placed on proper technique, age-appropriate modifications, and caregiver involvement for consistent progress and holistic support.
Instructions to Students (First 20 Minutes):Teacher will explain the connection between breath regulation, oxygen delivery to the brain, and enhanced neural engagement. Postures and breathing techniques supporting articulation and memory will be introduced. Safety guidelines and adjustments for various pediatric age groups will be covered.
Students' Activities
Step – 01 (70 Minutes): Students will practice postures and breathing techniques (e.g., *Nadi Shodhana, Bhramari, Vajrasana)* focusing on coordination, clarity of breath, posture, and the neurological purpose of each technique. Guidance will be given on incorporating gentle physical cues and voice clarity enhancement.
Step – 02 (70 Minutes): Students will individually or in small groups design a therapeutic *Yoga* session for a child with speech delay or mild cognitive impairment. The plan will include caregiver guidance, session objectives, weekly tracking strategies, and age-appropriate engagement methods. Each student will present their structured routine.
Assessment (Final 20 Minutes): Students will be assessed through live demonstration of at least one posture and one breathing technique with therapeutic explanation. A short viva will evaluate understanding of the rationale behind each technique. Peer and faculty feedback will focus on technical accuracy, therapeutic intent, and communication clarity.

Experiential-Learning 16.2 : *Siddha Yoga* Therapy for Children with Autism Spectrum Disorder (ASD)

Total Duration of the Activities: 3 hours
This therapeutic Yoga workshop introduces students to *Siddha Yoga* practices tailored for children with Autism Spectrum Disorder (ASD). Faculty will demonstrate calming postures and breathing techniques designed to support nervous system regulation, improve focus, and foster social-emotional growth. Students will practice these techniques, simulate structured *Yoga* sessions, and engage in caregiver education role-play. Emphasis is placed on adapting sessions for sensory needs, establishing therapeutic routines, and integrating home-based *Yoga* support through compassionate caregiver involvement.
Instructions to Students (First 20 Minutes): Teacher will provide an overview of ASD clinical features, behavioral challenges, and sensory sensitivities. Students will learn how *Yoga* supports symptom regulation, improves neurodevelopmental outcomes, and enhances emotional balance. Safety, adaptation strategies, and outcome monitoring will be emphasized.
Students' Activities

Step – 01 (70 Minutes):Students will practice assigned postures and *Pranayama* techniques such as *Balasana, Vajrasana, Bhramari, and Nadi Shodhana*, focusing on gentle transitions, breath control, and sensory regulation. They will simulate guided sessions using positive reinforcement, visual cues, and calming techniques.
Step – 02 (70 Minutes): In peer groups, students will design a weekly *Yoga* therapy plan for a hypothetical child with ASD. The plan will include posture sequencing, breathing routines, and relaxation components. They will role-play caregiver instruction sessions, emphasizing empathetic communication, home practice adaptation, and tracking behavioral progress.
Assessment (Final 20 Minutes):Students will be evaluated through demonstration of *Yoga* techniques and presentation of their therapy plan. Assessment will focus on technical accuracy, therapeutic reasoning, and effectiveness of caregiver communication during the simulation. A short viva will test understanding of *Yoga's* role in ASD management. Peer feedback will be included.

Experiential-Learning 16.3 : *Siddha Yoga* Techniques for Speech and Cognitive Enhancement in Children

Total Duration of the Activities: 3 Hours
This experiential learning session engages students in a simulation exercise using *Siddha Yoga* techniques designed to enhance brain function, support speech development, improve memory, and increase concentration in children. Through guided practice and reflective observation, students will explore the therapeutic impact of breath-regulated, concentration-focused *Yoga* postures and breathing techniques. They will develop insight into how increased oxygenation and focused movement patterns can support neurological and speech functions in pediatric care.
Instructions to Students (First 20 Minutes): Teacher will introduce the connection between brain oxygenation, cognitive clarity, and speech function, demonstrating specific *Yoga* postures and *Pranayamam* techniques that improve focus and neurological engagement. Instructions will emphasize mindful movement, deep breathing, and child-appropriate modifications.
Students' Activities
Step – 01 (70 Minutes): Students will independently or in small groups practice assigned *Yoga* postures and breathing techniques under supervision. They will focus on correct alignment, breath depth, and awareness of mental clarity during each movement. Emphasis will be placed on techniques known to enhance attention and support verbal processing.
Step – 02 (70 Minutes):Students will reflect on their experiential practice and document insights on how these *Yoga* techniques might benefit children with cognitive and speech delays. Reflections should consider neurological engagement, oxygenation effects, and observed improvements in focus or clarity during the session.
Assessment (Final 20 Minutes): Each student will submit a brief written reflection and may be asked to verbally share insights during a group discussion. Teacher will assess clarity of reflection, understanding of cognitive-speech links in *Yoga*, and ability to apply these techniques in a pediatric therapeutic context. Peer feedback will support formative learning.

Experiential-Learning 16.4 : *Siddha Yoga* Practices for Pediatric Cardiovascular Health

Total Duration of the Activities: 3 Hours
This experiential session equips students with knowledge and skills to apply *Siddha Yoga* postures and breathing practices that enhance pediatric cardiovascular health. The

faculty will demonstrate gentle *asanas* and *Pranayamam* techniques designed to regulate heart rate, improve circulation, and reduce stress. Students will practice these techniques under supervision and develop personalized *Yoga* session plans for children with early cardiovascular concerns. The session emphasizes therapeutic safety, preventive care, and outcome monitoring aligned with *Siddha* and modern pediatric perspectives.
Instructions to Students (First 20 Minutes): Teacher will introduce the cardiovascular benefits of *Yoga*, highlighting *Siddha* perspectives and modern physiological insights. Instructions will focus on how specific postures and breathing patterns affect circulation, heart function, and autonomic regulation in pediatric patients. Safety precautions for children will be emphasized.
Students' Activities
Step – 01 (70 Minutes): Students will practice postures such as *Tadasana, Setu Bandhasana,* and breathing techniques like *Nadi Shodhana* and *Resagam.* Focus will be on alignment, breath rhythm, and adaptations for age and health status. Faculty will provide real-time feedback on form and therapeutic intention.
Step – 02 (70 Minutes): Students will design a *Yoga* session plan for a pediatric case with early cardiovascular risk (e.g., obesity, stress-related hypertension). The plan will include posture sequencing, session timing, breathing focus, and tools for monitoring outcomes (e.g., pulse rate, relaxation levels). A short educational message for caregivers will also be prepared.
Assessment (Final 20 Minutes): Students will present their *Yoga* session plan and demonstrate selected techniques. Faculty and peer evaluations will assess accuracy, therapeutic adaptability, and presentation clarity. A viva will test understanding of cardiovascular mechanisms and *Yoga's* preventive role in pediatric heart health.

Experiential-Learning 16.5 : Therapeutic *Yoga* for Pediatric Respiratory Disorders

Total Duration of the Activities: 4 Hours
This hands-on workshop trains students in therapeutic *Siddha Yoga* techniques to support the management of pediatric respiratory disorders such as asthma, bronchitis, and allergic rhinitis. The session begins with a demonstration of age-appropriate postures and breathing exercises that improve lung capacity, reduce inflammation, and enhance respiratory function. Students will then practice the techniques under supervision, followed by designing case-specific *Yoga* care protocols. Emphasis will be on integrating *Yoga* into conventional treatment plans, safety adaptations for children, and clear documentation of expected clinical benefits.
Instructions to Students (First 20 Minutes): Teacher will introduce the physiological and therapeutic goals of *Yoga* for respiratory disorders, demonstrating postures *(e.g., Bhujangasana, Sukhasana)* and breathing practices *(e.g., Nadi Shodhana, Resagam, Bhramari)*. Child-friendly adaptations, clinical contraindications, and integration strategies with conventional medicine will be discussed.
Students' Activities
Step – 01 (70 Minutes): Students will practice demonstrated *Yoga* techniques under supervision. Emphasis will be placed on body posture, breath rhythm, therapeutic consistency, and adjusting practices for pediatric comfort and safety. Faculty will offer real-time corrections and feedback.
Step – 02 (70 Minutes): Working in groups, students will be assigned pediatric case scenarios (e.g., asthma with seasonal triggers). Each group will create a structured *Yoga* care plan including posture sequence, breathing techniques, timing, duration, frequency, and expected clinical improvements.
Step – 03 (60 Minutes): Groups will present their case-specific *Yoga* plans to peers. Discussion will focus on therapeutic rationale, integration with pharmacological treatments, and caregiver training. Students will receive feedback from faculty and peers on practicality, clarity, and therapeutic adaptability.
Assessment (Final 20 Minutes): Faculty will assess students through direct observation of technique execution, accuracy of breathing control, and the clarity of presented

care protocols. A practical viva will evaluate the student's understanding of *Yoga's* role in pediatric respiratory care, safety, and customization of practices. Peer assessments will be included for collaborative evaluation.

Experiential-Learning 16.6 : Adaptation of *Siddha Yoga* Routines for Children with Special Needs

Total Duration of the Activities: 4 hours
This practical workshop trains students to modify and design *Siddha Yoga* routines tailored for children with special needs, including those with developmental delays, neurological impairments, and physical disabilities. Faculty will demonstrate gentle, adaptable postures and breathing techniques that promote motor coordination, flexibility, and balance. Students will assess functional limitations in pediatric case scenarios and develop customized *Yoga* routines to address specific therapeutic goals. The session emphasizes safety, individualized care, and integration of *Siddha principles* with modern pediatric rehabilitation concepts.
Instructions to Students (First 30 Minutes): Teacher will introduce the principles of Yoga adaptation in pediatric special care, demonstrating postures and breathing techniques suitable for children with cerebral palsy, autism, and physical impairments. Guidelines on assessing limitations, using assistive tools, and ensuring safety and comfort will be explained.
Students' Activities (Next 180 mins)
Step – 01 (60 Minutes): Students will practice adapted postures and breathing techniques such as modified *Vajrasana,* supported *Balasana,* and gentle *Pranayamam.* Emphasis will be on therapeutic accuracy, safe handling, use of props, and comfort-based positioning for children with special needs.
Step – 02 (60 Minutes): In small groups, students will analyze a given pediatric case scenario and collaboratively design a *Siddha Yoga* routine tailored to the child's developmental or physical limitations. Plans will include modifications, therapy goals, session duration, caregiver involvement, and safety protocols.
Step – 03 (60 Minutes): Groups will present their designed routine, demonstrate 2–3 key postures, and justify the therapeutic benefits based on the child's condition. Peer and faculty feedback will support refining the therapeutic sequence, enhancing clarity, and ensuring practical feasibility in a real-world setting.
Assessment (Final 30 Minutes): Faculty will use DOPS to assess practical performance, focusing on adaptation techniques, posture execution, and safe handling. A practical viva will evaluate students' understanding of therapeutic reasoning, expected outcomes, and integration of *Siddha Yoga* in special pediatric care. Peer reviews will contribute to collaborative reflection and feedback.

Experiential-Learning 16.7 : Therapeutic *Yoga* for Stress and Anxiety in Children

Total Duration of the Activities: 3 Hours
This experiential workshop trains students in using therapeutic *Siddha Yoga* techniques to address stress and anxiety in children. The session focuses on emotional resilience building, anxiety control, and calming strategies through breathwork, mindfulness, and body awareness. Students will observe, practice, and simulate *Yoga*-based interventions suitable for pediatric psychological support. Emphasis is placed on gentle, age-appropriate practices that promote emotional well-being, caregiver education, and adaptation for different levels of pediatric stress.
Instructions to Students (First 30 Minutes): Teacher will introduce the psychological impact of stress and anxiety in children and explain how *Siddha Yoga* techniques such as calming *Pranayamam (e.g., Bhramari, Nadi Shodhana),* grounding postures *(e.g., Balasana),* and mindfulness exercises support emotional regulation. Guidelines on child-

friendly adaptations and safety will be provided.
Students' Activities
Step – 01 (60 Minutes): Students will practice therapeutic *Yoga* techniques under supervision. This includes calming breathwork, gentle postures, and mindfulness meditation tailored to reduce pediatric anxiety symptoms. Emphasis will be placed on breath coordination, posture comfort, and reflective body awareness.
Step – 02 (60 Minutes): Students will design a therapeutic *Yoga* routine for a child with anxiety or stress-related behavioral challenges. The plan will include breathing techniques, mindfulness elements, and physical postures. In small groups, students will role-play a therapy session, simulate caregiver instruction, and explain expected outcomes.
Assessment (Final 30 Minutes): Each student or group will demonstrate a segment of their *Yoga* routine and explain its emotional and psychological relevance. Teachers will assess the performance using a checklist focused on technique, child-centered adaptation, and therapeutic clarity. Peer feedback and a brief reflective note on emotional resilience-building through *Yoga* will support final evaluation.

Experiential-Learning 16.8 : Case Studies and Evidence-Based Practices in *Siddha Yoga* for Pediatrics

Total Duration of the Activities: 3 Hours
This experiential session trains students to critically analyze and prepare simulated case study reports demonstrating the clinical application of *Siddha Yoga* in pediatric disorders. Using evidence-based frameworks, students will examine therapeutic outcomes, research validation, and condition-specific adaptations of *Siddha Yoga.* Students will simulate pediatric cases, develop structured reports reflecting clinical reasoning and therapeutic integration, and discuss real-world success stories and published data supporting *Siddha Yoga* in pediatrics.
Instructions to Students (First 30 Minutes): Teacher will introduce the importance of evidence-based practices in *Siddha Yoga* therapy for pediatric conditions. Students will be briefed on how to structure a case study report including patient profile, *Siddha Yoga* interventions used, outcomes observed, and supportive research citations. Instructions will include simulation setup and referencing guidelines.
Students' Activities
Step – 01 (60 Minutes): In small groups, students will be assigned or will choose a simulated pediatric condition (e.g., asthma, Attention-Deficit/Hyperactivity Disorder (ADHD), constipation, anxiety). Based on faculty inputs and literature, students will design a realistic case profile, select appropriate *Siddha Yoga* interventions, and document condition-specific applications.
Step – 02 (60 Minutes): Students will complete a simulated *Siddha Yoga* case report, detailing patient background, diagnosis, applied *Yoga techniques,* clinical outcomes, and supporting research evidence. They must reflect on therapeutic success and limitations, then present a summary to peers, emphasizing evidence integration and condition-specific application in pediatric *Siddha Yoga* practice.
Assessment (Final 30 Minutes): Teacher will evaluate the simulated case study reports and group presentations using a structured checklist. Key assessment parameters include clinical relevance, evidence inclusion, therapeutic rationale, and clarity of report writing. A short viva will test students' understanding of evidence-based *Siddha Yoga* practice. Peer feedback will support reflective learning and discussion.

Modular Assessment

Assessment method	Hour
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 6C. Section A - This 25-mark assessment evaluates students' competency in developing a structured research or yoga centre project proposal focused on pediatric Siddha Yoga therapy. Students will choose one condition (e.g., ASD, epilepsy, ADHD) and demonstrate clarity in objectives, rationale, methodology, Siddha integration, expected impact, feasibility, and ethical implementation. Instructions to Students : Write a structured project or research proposal on given topic (maximum 1000 words) addressing objectives, Siddha Yoga relevance, design methodology, outcome goals, and feasibility. Focus on innovation, practicality, and ethical pediatric care. Submission must be original and well-referenced. Instructions to Teachers : Provide relevant pediatric yoga-based topic. Evaluate the proposal using standardized rubrics for relevance, Siddha-Yoga integration, clarity of objectives, methodology, outcome prediction, and ethical planning. Encourage critical thinking and translational application in Siddha pediatric care. Use rubric scoring to ensure fair, structured evaluation across all proposals. Mark Distribution : Marks are distributed as follows: Clarity of Research/Project Objectives and Need Justification – 5 marks, Integration of Siddha Yoga and Pediatric Relevance – 5 marks, Methodology and Feasibility of Implementation – 6 marks, Expected Outcomes and Impact on Pediatric Care – 5 marks, and Innovation, Ethics, and Presentation Quality – 4 marks. Total – 25 Marks. & Section – B. This 25-mark modular assessment evaluates the student's ability to design and demonstrate *Siddha* Yoga-based therapeutic strategies for children with neurological, respiratory, gastrointestinal, and psychosomatic conditions. Through simulated cases and OSPE stations, students will exhibit posture execution, breathing practices, therapy justification, and integration of evidence-based pediatric *Siddha* Yoga modules. Instructions to Students: Students will be provided with a pediatric clinical scenario involving conditions like epilepsy, asthma, colic, or anxiety. Demonstrate relevant *Siddha* Yoga routines with posture, breath, and therapeutic sequence. During viva, justify the selection, safety adaptations, expected outcomes, and integration with *Siddha* or conventional therapies. No reference materials allowed. Instructions to Teachers: Design OSPE stations and simulation cases reflecting pediatric neurological, respiratory, or immune disorders. Ask students to demonstrate condition-specific *Siddha* Yoga techniques. Evaluate their clinical reasoning, posture accuracy, therapeutic alignment, and communication during viva. Assess integration with *Siddha* principles and ability to personalize Yoga care for pediatric needs. Mark Distribution: A total of 25 marks are allocated for evaluating clinical understanding and performance. Posture and breathing demonstration for condition-specific Yoga practices carry 8 marks. Therapeutic planning with *Siddha* integration accounts for 6 marks. Case-based OSPE justification is awarded 5 marks. Viva communication earns 3 marks, and preventive strategies carry 3 marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).	4

Paper No : 3 Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship

Semester No : 3

Module 17 : ?????????????? ????? ???????? ???? ??????? - Kuzhanthaigalukkaana Siddha Maruthuva Unavu Muraigal (Siddha Based Pediatric Nutrition)

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

Describe Siddha-based nutritional needs for child growth and development.
Describe Siddha dietary care during pregnancy, lactation, and infancy.
Identify Siddha herbs and functional foods supporting pediatric health.
Apply food classifications *(Vali, Azhal, Iyyam)* in pediatric nutrition.
Demonstrate Siddha dietary management in common pediatric illnesses.
Evaluate Siddha nutrition strategies for special children's healthcare.

M 17 Unit 1 ??????? ????????????? ????????????? ??????????? - Kuzhanthai Arokiyaththil Ootasathin Adippadaigal - Fundamentals of Nutrition in Pediatric Health

17.1.1 Child Growth, Development, and Gastrointestinal Health – Infant GI maturation, developmental stages, Siddha dietary support, natural digestive enhancers, pediatric growth facilitation.
17.1.2 Nutrition, Digestion, and Absorption in Siddha – Nutrient assimilation, digestive efficiency, pediatric nourishment, Siddha food principles, absorption optimization.
17.1.3 Gut Microbiota and Immune Health in Infants – Microbial diversity, infant gut ecology, Siddha dietary modulation, immunity enhancement, digestive flora balance.
17.1.4 Nutritional Needs for Pediatric Health (Energy, Protein, Fat, Vitamins, and Minerals) – Macronutrient and micronutrient essentials, Siddha nutritional equivalents, growth-based dietary planning, traditional nourishment methods.
17.1.5 Early Nutrition and Long-Term Health – Preventive health outcomes, early-life nutrition planning, Siddha food strategies, long-term pediatric wellness

promotion.

References: 46,47,63,89,116

3A	3B	3C	3D	3E	3F	3G
CO1,CO4	Describe the stages of child growth and development of the gastrointestinal system.	1	Lecture	CS	Knows-how	L&GD,L &PPT ,L
CO1,CO4	Discuss the nutritional needs for pediatric health, immune health, early nutrition and long-term health	1	Lecture	CS	Knows-how	L&GD,L, L&PPT
CO1,CO4	Apply *Siddha* dietary and care principles to promote gut microbiota balance and immunity in infants.	2	Practical Training 17.1	PSY-GUD	Shows-how	PER,CBL ,DIS
CO3,CO4,CO6	Apply early nutritional principles to promote lifelong health outcomes in children.	2	Practical Training 17.2	CAP	Shows-how	PL,CBL, D
CO1,CO4,CO7	Apply *Siddha* dietary principles to meet pediatric nutritional needs	4	Experiential-Learning 17. 1	CAP	Does	PER,TP W,PL
CO1,CO4	Describe gut microbiota composition, functions, and role in pediatric digestive and immune health.	1	Lecture	CS	Knows-how	DIS,LS,P ER

M 17 Unit 2 ??????? ????????????? ????????????? ??????????? - Kuzhanthai Arokiyaththil Ootasathin Adippadaigal -Dietary Guidelines for Children of Different Ages

17.2.1 Nutrition in Pregnancy and Lactation – Maternal health support, lactation enhancement, prenatal nourishment, Siddha herbal formulations, newborn well-being promotion.
17.2.2 Energy and Nutritional Requirements for Infants, Children, and Adolescents – Growth-stage dietary planning, Siddha nutrition adaptation, traditional food use, energy balance strategies.
17.2.3 Nutritional Needs of Preterm Infants – Weight gain support, developmental progression, Siddha feeding protocols, herbal strengthening remedies, neonatal care focus.

17.2.4 Breastfeeding and Complementary Feeding in Siddha – Breast milk benefits, allergy prevention, complementary feeding timing, *Thaipalinperumai* practices, traditional infant nutrition.
17.2.5 Siddha-Based Dietary Guidelines for School-Age Children and Adolescents – Balanced diet planning, traditional meal structuring, mental and physical growth, snack selection, human milk banking awareness.

References: 36,43,58,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO4	Describe the Siddha-based dietary guidelines for various stages of life, including antepartum, postpartum and lactation period.	1	Lecture	CC	Knows-how	TPW,L& PPT ,DIS
CO4,CO6,CO7	Apply *Siddha* dietary concepts to meet energy and nutritional needs across pediatric growth stages.	2	Practical Training 17.3	CAP	Shows-how	PL,TBL, CBL
CO4,CO6,CO7	Apply *Siddha* dietary and care principles to support nutrition and development in preterm infants.	2	Practical Training 17.4	CAP	Shows-how	TPW,DIS ,CBL
CO2,CO4,CO6	Design age-appropriate *Siddha* dietary guidelines using creative visual tools	3	Experiential-Learning 17. 2	CS	Does	PER,TBL ,DIS,PL
CO1,CO3,CO5	Analyze pediatric nutritional needs and design *Siddha*-based diet plans	3	Experiential-Learning 17. 3	CAN	Does	TBL,CBL ,PER,SIM
CO1,CO4	Discuss the Siddha-based dietary guidelines for various stages of child development, including infancy, toddler,school age child and adolescence.	1	Lecture	CC	Knows-how	DIS,ML, TBL

M 17 Unit 3 ???????????? ????????????? ?????????, ????????? ??????? ????? ?????????? ????? – Kuzhanthaikalin Oottasathil Mooligaigal, Thathukkal matrum Jeeva Porutkalin Pangu -Role of Herbs, Minerals, and Animal Products in Pediatric Nutrition

17.3.1 Herbs for Pediatric Nutrition – *Athi, Arugan, Karisalai, Manathakali, Keezhkainelli* benefits, immune support, growth enhancement, Siddha herbal applications.

17.3.2 Minerals and Animal Products in Pediatric Nutrition – Milk, honey, fish, meat preparations, mineral supplementation, deficiency correction, Siddha-based growth promotion.
17.3.3 Therapeutic Use of Traditional Rice, Pulses, and Vegetables – Indigenous rice varieties, legume benefits, vegetable-based therapy, Siddha dietary balancing, nutritional restoration.
17.3.4 Functional Foods in Pediatric Care – Honey, greens, dairy derivatives, immunity boosting, holistic nourishment, Siddha-recommended functional food usage.
17.3.5 *Siddha* Classification of Foods and Gunaporulgal – *Vali-Azhal-Iyyam* dietary effects, *Sattva-Raso-Tamo* influence, emotional balance, energy modulation, pediatric well-being optimization.

References: 27,68,78,90,123

3A	3B	3C	3D	3E	3F	3G
CO1,CO4	Apply Siddha principles to understand the nutritional and therapeutic benefits of specific herbs in pediatric nutrition	1	Lecture	CC	Knows-how	TPW,TBL,LS
CO4,CO6,CO7	Apply knowledge of minerals and animal-based nutrition to support growth and correct deficiencies in children.	2	Practical Training 17.5	CAP	Shows-how	ML,TBL,EDU
CO4,CO6,CO7	Apply *Siddha* knowledge to identify and utilize functional foods for pediatric nourishment and immunity.	2	Practical Training 17.6	CAP	Shows-how	TBL,D,DIS
CO3,CO4,CO6	Apply *Siddha* knowledge on green leafy herbs for pediatric immune support and growth.	2	Practical Training 17.7	CAP	Shows-how	D,EDU,TBL
CO2,CO3,CO4	Develop tailored *Siddha* nutrition plans for pediatric nutritional challenges	4	Experiential-Learning 17.4	CAN	Does	DIS,CBL,SIM,PER
CO2,CO3,CO4	Analyze the impact of *Siddha* food classifications on pediatric well-being	3	Experiential-Learning 17.5	CAN	Does	TBL,JC,LS

CO2,CO3,CO4	Apply *Siddha* principles to highlight benefits of functional foods in child health	3	Experiential-Learning 17.6	CAP	Does	PL,PER,TPW
CO1,CO4	Apply Siddha principles to understand the nutritional and therapeutic benefits of specific metals,minerals and animal products in pediatric nutrition	1	Lecture	CC	Knows-how	TPW,TBL,PrBL

M 17 Unit 4 ???????????? ???????????? ????? ???????? ??????? – Kuzhanthaikalin Noikalukkana Siddha Maruthuva Unavugal Siddha Dietary Management for Pediatric Diseases

17.4.1 Siddha Dietary Management for Respiratory and Digestive Disorders – *Suram and Kazhichal* care, *Agum Aagapatharthangal* application, *thodam* balance, pediatric diet therapy, digestive-respiratory healing.
17.4.2 Dietary Management for Skin Conditions and Neurological Disorders – *Karappan* and *Valippunoi* support, food-based interventions, symptom mitigation, dietary triggers, Siddha neurodermatological care.
17.4.3 Siddha Dietary Management for Childhood Fever and Infectious Diseases – *Veluppunoi, Kanam, Suzhi Kanam* support, immune strengthening, infection resistance, fever-specific dietary regulation.
17.4.4 Antiepileptic Drug-Nutrient Interactions – Nutrient absorption challenges, antiepileptic impact, Siddha nutritional correction, medication synergy, dietary side effect reduction.
17.4.5 Siddha Nutrition for Special Children – *Ammainoi, Gunmam, Athithoolam* dietary support, special needs adaptation, herbal supplementation, cognitive-physical development nourishment.

References: 2,47,89,95,116

3A	3B	3C	3D	3E	3F	3G
CO1,CO4	Analyze the role of Siddha dietary management in neurological diseases,special children and anti epileptic drug nutritent interactions.	1	Lecture	CC	Knows-how	PL,PER
CO1,CO4	Analyze antiepileptic drug-nutrient interactions and the unique dietary requirements for children	1	Lecture	CC	Knows-how	L,L&GD,L&PPT
CO4,CO6,CO7	Apply Siddha dietary principles to manage pediatric respiratory and digestive disorders effectively.	2	Practical Training 17.8	CAP	Shows-how	TBL,CBL,D

CO4,CO6,CO7	Apply *Siddha* dietary principles for managing pediatric skin and neurological conditions.	2	Practical Training 17.9	CAP	Shows-how	CBL,SIM ,TBL,DIS
CO4,CO6,CO7	Apply *Siddha* dietary principles to support recovery and immunity in pediatric infectious diseases.	2	Practical Training 17.10	CAP	Shows-how	SIM,DIS, CBL
CO3,CO4,CO5	Demonstrate dietary counseling using *Siddha principles* in pediatric care	3	Experiential-Learning 17.7	PSY-GUD	Does	SIM,DIS, RP,BL
CO1,CO2,CO4	Apply *Siddha* dietary principles in managing pediatric respiratory, digestive, dermatological, neurological, and infectious conditions	3	Experiential-Learning 17.8	AFT-SET	Does	DIS,CBL, SIM
CO1,CO4	Analyze the role of Siddha dietary management in Respiratory, gastro intestinal diseases,skin diseases and infectious diseases like fever.	1	Lecture	CAN	Knows-how	PL,DIS,P BL

Practical Training Activity

Practical Training 17.1 : Understanding Gut Microbiota and Immune Health in Infants through *Siddha*-Based Practices

Total Duration of the Activities: 2 Hours

This session explores the scientific and *Siddha*-based understanding of infant gut microbiota and its vital role in shaping early immune health. Students will analyze factors influencing microbial diversity, learn about infant gut ecology, and discuss *Siddha* dietary interventions (such as herbal decoctions, paatiyam, breastmilk support) that enhance immunity and regulate digestive flora. Emphasis will be on balancing *Vali–Azhal–Iyam,* promoting colonization of beneficial microbes, and preventing dysbiosis.

Instructions to Students (First 20 Minutes): Teacher will introduce the concept of gut microbiota development in infants, its role in immune programming, and *Siddha* perspectives on digestive health and early immunity. Students will be divided into small groups and assigned micro-topics such as factors affecting microbial diversity, immune consequences of dysbiosis, *Siddha* herbs and infant gut, and fermented foods in paediatric diets. Guidelines for group activity and chart preparation will be provided.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Each group will review a clinical or theoretical case scenario related to infant gut health—e.g., colic, recurrent infections, weaning-related disturbances. They will prepare a chart or infographic outlining the microbial changes, immune implications, and *Siddha* dietary or lifestyle responses. Students will identify *Siddha* formulations, food textures, and feeding patterns that promote microbial balance.

Step – 02 (Next 40 Minutes): Groups will present their charts and case reflections with an emphasis on the interplay between gut flora and immunity in infants. They will demonstrate how to modify diets according to gut health signs, suggest immune-boosting routines, and discuss *Vali–Azhal–Iyam* balance from a microbiota perspective. Presentations will include infant-friendly herbal recipes, seasonal gut support guidelines, and prevention strategies for dysbiosis.
Assessment Methods (Final 20 Minutes): Teacher will use a checklist to assess chart accuracy, scientific depth, and *Siddha* integration. A case presentation rubric will evaluate clarity, clinical reasoning, and teamwork. A short practical viva will test understanding of infant microbiota development, immune consequences, and how *Siddha* dietary modulation can maintain a healthy microbial ecosystem in early life.

Practical Training 17.2 : Exploring the Role of Early Nutrition in Long-Term Pediatric Health

Total Duration of the Activities: 2 Hours
This practical session emphasizes the importance of early-life nutrition and its impact on long-term pediatric health outcomes, including immunity, growth, metabolic stability, and disease prevention. Students will explore *Siddha* and scientific dietary principles, the role of breastfeeding, weaning practices, and balanced paediatric nutrition in shaping future physical and cognitive wellness. The session will integrate clinical reflection, diet planning, and lifespan outcome mapping.
Instructions to Students (First 20 Minutes): Teacher will introduce the key concepts of first 1000 days nutrition, including intrauterine programming, breastfeeding, weaning, and micronutrient support. The discussion will include *Siddha* perspectives such as paatiyam, Udal kattugal development, and *thodam* balance in early food planning. Students will be grouped and assigned themes like immunity, metabolic disorders, neurodevelopment, or growth failure, with a focus on how early nutrition affects each.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Groups will analyze a clinical scenario involving early nutrition (e.g., low birth weight, poor weaning practices, vitamin deficiency, food allergy). They will prepare a nutrition chart and long-term risk map, identifying how early deficiencies or imbalances can lead to chronic issues like obesity, anemia, or delayed milestones. Each group will apply *Siddha* dietary insights, suggest preventive strategies, and include safe herbal supports where relevant.
Step – 02 (Next 40 Minutes): Groups will present their findings, highlighting the connection between early nutritional status and later health outcomes. Presentations will include timeline-based illustrations, dietary correction plans, and lifestyle suggestions for sustained wellness. They will also recommend community education strategies and maternal-child interventions to support optimal early feeding and growth based on both modern and *Siddha* approaches.
Assessment Methods (Final 20 Minutes): Teacher will assess the nutrition chart and case analysis using a structured checklist. A case reflection rubric will score presentation clarity, clinical understanding, and cultural integration. A brief practical viva will evaluate each student's grasp of how early-life nutrition influences lifelong immunity, growth, and disease prevention, integrating both *Siddha* and scientific knowledge systems.

Practical Training 17.3 : *Siddha*-Based Energy and Nutritional Planning for Pediatric Growth Stages

Total Duration of the Activities: 2 Hours
This practical session focuses on identifying the energy and nutritional requirements for infants, children, and adolescents using *Siddha* growth-stage principles. Students will analyze physiological needs at different pediatric stages and apply *Siddha concepts* such as *Udal kattugal* development, seasonal adaptation, and paatiyam-based food selection. Traditional *Siddha* food items will be used to create age-specific dietary plans that support energy, immunity, and growth.

Instructions to Students (First 20 Minutes): Teacher will introduce *Siddha* and modern perspectives on nutritional needs across pediatric age groups, including infancy (0–2 years), early childhood (2–6 years), middle childhood (7–12 years), and adolescence (13–18 years). Students will review energy needs, macro- and micronutrient distribution, and *Siddha* dietary principles like saturation, digestion time, and humoral balance. Each group will select one age stage for focused work.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Groups will analyze the dietary and energy requirements of their assigned age group and design a complete *Siddha*-aligned diet plan including breakfast, lunch, dinner, and in-between meals. The plan must include traditional *Siddha* items such as millet porridge, *thinai koozh, ulunthu kali*, legume-based preparations, and herbal decoctions. Groups will also mention adjustments for digestion strength, seasonal variation, and specific conditions like low appetite or delayed teething.
Step – 02 (Next 40 Minutes): Students will present their age-specific nutrition charts, explaining how their plan fulfills energy, protein, vitamin, and mineral needs in line with *Siddha* dietary logic and growth-stage physiology. Each group will justify the use of traditional food items, outline their preparation, and describe how they balance *Vali–Azhal–Iyam* during that developmental phase. Peer feedback and questions will be encouraged during the presentation.
Assessment Methods (Final 20 Minutes):Teacher will use a checklist to evaluate dietary accuracy, cultural relevance, and *Siddha* integration. A diet chart rubric will assess visual clarity, nutrient coverage, and adaptability. A brief practical viva will test students' understanding of pediatric nutritional needs and how *Siddha* dietary principles can be adapted for age-specific, energy-appropriate pediatric nutrition planning.

Practical Training 17.4 : *Siddha*-Based Nutritional Planning for Preterm Infants: Weight Gain and Developmental Support

Total Duration of the Activities: 2 Hours
This session focuses on the special nutritional needs of preterm infants, emphasizing weight gain, organ development, and immunity enhancement. Students will explore *Siddha* guidelines for neonatal care, including feeding schedules, herbal remedies adapted for premature infants. Emphasis will be placed on digestive readiness, safe food transitions, and the integration of *Siddha* growth-promoting formulas to improve neonatal outcomes.
Instructions to Students (First 20 Minutes): Teacher will introduce the challenges of preterm infant care, highlighting low birth weight, immature digestion, and poor immune function. Students will be briefed on *Siddha* concepts and the use of mild herbal supports. Groups will be formed to analyze different care aspects and develop customized nutrition protocols.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will analyze a case scenario involving a preterm infant (e.g., 34-week baby with slow weight gain). They will create a nutrition and care chart including *Siddha*-based guidelines for feeding intervals, digestive support, weight gain food preparations. Modern supplementation such as expressed breast milk and iron or vitamin support may be integrated.
Step – 02 (Next 40 Minutes):Groups will present their preterm infant nutrition protocol using a visual poster or structured chart. They will explain how *Siddha principles* are adapted for digestive immaturity, how remedies promote tissue development and immunity, and how to transition to weaning diets. Presentations will also include safety considerations, dosage modifications, and strategies for maternal education and neonatal follow-up.
Assessment Methods (Final 20 Minutes):Teacher will use a structured checklist to evaluate clinical accuracy, *Siddha* alignment, and clarity of feeding protocol. A protocol rubric will assess the inclusion of therapeutic goals, traditional food use, and neonatal care adaptations. A practical viva will test students' understanding of nutritional

priorities for preterm infants and their ability to apply *Siddha* therapeutic strategies to fragile pediatric populations.

Practical Training 17.5 : *Siddha*-Based Use of Minerals and Animal Products in Pediatric Nutrition

Total Duration of the Activities: 2 Hours

This session explores the role of mineral-rich and animal-derived foods such as milk, honey, fish, and meat in pediatric growth, immunity, and deficiency correction, integrating *Siddha* dietary principles. Students will examine how these foods contribute to calcium, iron, zinc, and protein balance, and their therapeutic role in *Siddha texts* for strengthening bones and muscles. Use of traditional recipes and supplementation protocols will be highlighted.

Instructions to Students (First 20 Minutes): Teacher will explain the physiological need for minerals and animal products in pediatric stages and introduce *Siddha*-based food combinations, such as milk with herbs, meat broths, and honey-based immunity mixes. Through mobile learning clips and interactive quizzes, students will review the nutritional content and classical uses of each product. Teams will be formed and assigned a category: milk, honey, fish, or meat.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Each team will create an interactive poster or digital storyboard on their assigned item. They will cover nutritional values, therapeutic applications in *Siddha* (e.g., meat soup for muscle strength, honey for respiratory immunity), cooking or administration methods, and age-appropriate safety guidelines. Mobile learning resources and gamified edutainment tools (e.g., digital flashcards, quizzes) will be used for engagement.

Step – 02 (Next 40 Minutes): Teams will present their product in an edutainment format, such as a role play, health song, animated slide show, or storytelling method. They will explain how these items help address specific pediatric deficiencies like anemia, rickets, or protein-energy malnutrition and align their presentation with *Siddha* dietary logic. Peer interaction and collaborative learning will be encouraged.

Assessment Methods (Final 20 Minutes): Teacher will use a structured checklist to assess the nutritional accuracy, cultural relevance, and *Siddha* alignment of the content. Peer assessment will review creativity, clarity, and educational value. A short practical viva will test students' understanding of the scientific and *Siddha* rationale for using minerals and animal products in pediatric nutrition and growth promotion.

Practical Training 17.6 : *Siddha*-Recommended Functional Foods in Pediatric Care for Immunity and Holistic Nourishment

Total Duration of the Activities: 2 Hours

This session focuses on identifying and utilizing *Siddha*-recommended functional foods—such as honey, green leafy vegetables, and dairy derivatives—to support immunity, digestion, and overall development in children. Functional foods are those that provide health benefits beyond basic nutrition, and this session teaches students how to integrate such foods into daily pediatric dietary routines using *Siddha* guidelines.

Instructions to Students (First 20 Minutes): Teacher will introduce the concept of functional foods in *Siddha* and modern nutrition, explaining their role in boosting immunity, regulating digestion, and enhancing mental and physical development in children. Students will be grouped and assigned focus areas such as honey, greens, dairy products, or combinations. Each team will prepare educational material on therapeutic value, age-appropriate use, and seasonal application.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will work in teams to develop a functional food chart or visual poster that includes 5–6 *Siddha*-recommended foods. They will explain

nutritional properties, therapeutic roles (e.g., honey for cough, greens for anemia, buttermilk for digestion), preparation methods, and dosage modifications for infants, toddlers, and adolescents. Each group will incorporate holistic nourishment principles like *Vali–Azhal–Iyam* balance and food pairing recommendations.
Step – 02 (Next 40 Minutes): Each group will present their functional food profile in the form of a group discussion or role-play where they simulate a parent-counselling session or pediatric dietary consultation. They will explain how to integrate these foods into daily meals, immune-boosting routines, and seasonal diet protocols, reflecting both scientific logic and *Siddha* dietary ethics.
Assessment Methods (Final 20 Minutes):Teacher will assess the charts/posters using a structured checklist evaluating accuracy, *Siddha* integration, and age relevance. Peer assessment will focus on presentation clarity, team effort, and practical applicability. A short practical viva will test the students' understanding of functional food selection, preparation, and *Siddha*-based justification for use in pediatric health maintenance.

Practical Training 17.7 : *Siddha* Green Leaves in Pediatric Nutrition for Immunity and Growth Enhancement

Total Duration of the Activities: 2 Hours
This session introduces students to *Siddha*-classified green leafy vegetables (Keerai) used in pediatric nutrition for immune strengthening, digestive regulation, and bone-muscle growth. Students will explore commonly used greens such as *Murungai (Moringa), Ponnanganni, Sirukeerai, Arai Keerai,* and their role in *Siddha* formulations and daily food protocols. Focus will be on nutritional properties, preparation methods, age-appropriate use, and seasonal dietary integration.
Instructions to Students (First 20 Minutes): Teacher will explain the *Siddha* classification of green leaves, their properties *(Suvai, Veeriyam, Gunam, Pirivu),* and relevance in promoting pediatric health and immunity. Each group will be assigned one or two *Siddha* greens and will review their use in traditional recipes, therapeutic indications, and nutrient profiles such as iron, calcium, beta-carotene, and fiber.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will prepare a functional chart or poster detailing the assigned green's *Siddha* profile, nutritional content, therapeutic application (e.g., constipation, anemia, immune deficiency), preparation method, and pediatric dosage. They will incorporate visual elements, local names, and sample weaning or meal plans. Greens may include:
Step – 02 (Next 40 Minutes): Groups will present their charts as part of an edutainment demonstration, simulating a parent counseling session, recipe demonstration, or nutrition class. They will highlight how to introduce these greens safely into infant, toddler, and adolescent diets, respecting *Vali–Azhal–Iyam* balancing. Peer feedback and practical use suggestions will be encouraged.
Assessment Methods (Final 20 Minutes):Teacher will assess using a structured checklist for poster content, accuracy, and clarity. A peer assessment rubric will rate presentation skills and creative engagement. A short practical viva will test students' understanding of *Siddha* green leaves in pediatric immunity and nutrition, including clinical indications and daily food-based use.

Practical Training 17.8 : Siddha Dietary Management for Pediatric Respiratory and Digestive Disorders

Total Duration of the Activities: 2 Hours
This session introduces students to Siddha-based dietary regimens for managing common respiratory and digestive ailments in children such as irumal (cough), suram

(fever), vaanthi (vomiting), kazhichal (diarrhea), and indigestion. Students will explore therapeutic foods, contraindicated items, and preparation methods based on Siddha principles of suvai, gunam, veeriyam, and Udal kattugal nourishment. Practical application through clinical scenarios and food charts will be emphasized.
Instructions to Students (First 20 Minutes): Teacher will explain how Siddha dietary management plays a role in balancing Vali, Azhal, and Iyam for pediatric digestive and respiratory care. Students will be assigned either a respiratory or digestive disorder and guided to develop dietary plans, using traditional items such as milagu rasam, elumichai kanji, pacharisi congee, and thuthuvalai soup with proper paatiyam guidelines.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will work in teams to create a clinical dietary chart based on a pediatric case scenario (e.g., a child with chronic cough or acute diarrhea). The chart will include allowed foods, preparation methods, timing, consistency, quantity, and food to avoid, along with justifications using Siddha dietary principles. Teams will use visual formats (charts, plates, food calendars) to enhance clarity.
Step – 02 (Next 40 Minutes): Each group will present their dietary plan through a demonstration or simulated caregiver instruction, showing how specific foods can be used for symptom relief and recovery. They will explain their rationale using Siddha classical references and modern understanding of pediatric nutrition and digestion. Discussion will include seasonal adjustments and home-care support.
Assessment Methods (Final 20 Minutes): Teacher will assess using a structured checklist for clinical relevance, Siddha rationale, and accuracy of dietary chart. A case-based assessment rubric will evaluate the dietary plan's therapeutic appropriateness. A practical viva will test students' knowledge of Siddha dietetics for pediatric respiratory and digestive conditions and their ability to explain dietary strategies to caregivers.

Practical Training 17.9 : *Siddha* Dietary Strategies for Pediatric Skin Conditions and Neurological Disorders

Total Duration of the Activities: 2 Hours
This session enables students to understand and apply *Siddha* dietary modifications for children with skin disorders (e.g., eczema, urticaria, psoriasis) and neurological conditions (e.g., Attention-Deficit Hyperactivity Disorder, seizures, developmental delay). Emphasis is placed on *kutram*-specific diets, dietary elimination, food-drug interactions, and the role of pathiyam (dietary discipline) in managing inflammation, immunity, and nerve nourishment.
Instructions to Students (First 20 Minutes): Teacher will explain *Siddha* concepts of skin and nerve-related disorders including the role of *Iyam* accumulation, *Azhal vitiation,* and nerve sheath imbalance. Students will be divided into two groups—one focusing on skin conditions and the other on neurological disorders. Each group will be assigned a pediatric case scenario and will prepare a *Siddha*-based dietary plan with therapeutic and preventive components.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Each group will create a dietary chart specific to their case scenario. For skin conditions, foods reducing heat *(e.g., neer mor, elaneer, pacharisi kanji)* and avoiding allergens will be listed. For neurological conditions, brain-supportive items *(e.g., ulunthu kali, gingelly oil, Brahmi nei)* and gut-calming foods will be included. Charts will reflect age-specific needs, food timings, seasonal adjustments, and combinations that support *thodam* balance.
Step – 02 (Next 40 Minutes): Groups will simulate a caregiver counselling session, presenting their charts and explaining food choices, restrictions, and preparation techniques. They will integrate both classical *Siddha* references and practical modern observations, including dietary patterns to support immune modulation, cognitive stability, and skin regeneration. Real-life examples and child-centered approaches will be demonstrated.
Assessment Methods (Final 20 Minutes):Teacher will use a checklist to assess completeness, *Siddha* reasoning, and nutritional appropriateness of the chart. A case-based

assessment rubric will evaluate presentation clarity and therapeutic alignment. A practical viva will test students' understanding of dietary restrictions and recommendations for pediatric skin and neurological conditions, integrating both *Siddha* and nutritional logic.

Practical Training 17.10 : *Siddha* Dietary Management in Pediatric Infectious Diseases

Total Duration of the Activities: 2 Hours
This session trains students to create *Siddha*-based dietary plans for managing common pediatric infectious diseases such as fever, respiratory infections, diarrhea, and skin infections. Students will explore *thodam*-specific dietary regimens, fluid and electrolyte balance, and immune-supportive foods that align with classical texts. Emphasis is placed on paatiyam, symptom-based food selection, and age-appropriate nutrition to aid in faster recovery and long-term wellness.
Instructions to Students (First 20 Minutes): Teacher will introduce the role of *Siddha* diet in combating infections, highlighting principles such as light digestibility, anti-inflammatory combinations, and balancing *Vali, Azhal, and Iyam.* Students will be grouped and assigned infectious disease case scenarios. Each group will design a corresponding dietary protocol with focus on hydration, digestion, tissue healing, and energy support.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will prepare a diet chart based on their case scenario. It should include therapeutic foods *(e.g., milagu rasam, elaneer, kanji with jeeragam, thin rice gruel),* immune boosters *(e.g., nelli, tulsi decoction),* food preparation methods, and dietary restrictions during infection. The chart will reflect stage-specific food choices (acute, recovery) and be supported by Siddha text references.
Step – 02 (Next 40 Minutes): Groups will present their chart in a simulated caregiver education session, demonstrating how the diet supports symptom relief, digestion, and immune regulation. They will explain the rationale behind each dietary choice and simulate answering caregiver questions on feeding difficulties, dehydration, or recovery diets.
Assessment Methods (Final 20 Minutes):Teacher will assess using a structured checklist for clarity, relevance, and *Siddha* dietary logic. A case-based assessment rubric will evaluate chart presentation and problem-solving. A short practical viva will test understanding of *Siddha* dietary strategies in pediatric infectious disease management and the ability to explain them effectively.

Experiential learning Activity

Experiential-Learning 17.1 : *Siddha*-Based Pediatric Nutrition and Balanced Meal Planning

Total Duration of the Activities: 4 Hours
This experiential learning session introduces students to essential nutrients for pediatric health and their traditional sources based on *Siddha* dietary principles. Students will collaboratively explore and apply this knowledge by designing balanced meal plans for children. The activity promotes critical thinking, teamwork, and a deeper understanding of culturally integrated nutrition in child development.
Instructions to Students (First 30 Minutes): Teacher will explain the importance of pediatric nutrition and introduce essential nutrients including energy, proteins, fats, vitamins, and minerals. Teacher will guide students on *Siddha* dietary concepts and how traditional foods align with these nutritional needs. Students will be divided into groups and instructed to identify *Siddha* food sources for each nutrient and prepare to create a visual pediatric meal plan.

Students' Activities
Step – 01 (60 Minutes): Students will work in assigned groups to research and list *Siddha* food sources rich in essential nutrients. Students will discuss the role of each nutrient in pediatric health and how traditional diets support immunity, growth, and development. Teacher will facilitate group discussions and provide feedback as students compile their findings.
Step – 02 (60 Minutes): Students will design a visual pediatric meal plan based on *Siddha* dietary principles. Students will incorporate three meals (breakfast, lunch, dinner), ensuring they cover all essential nutrients. Students will create a chart or poster that explains the health benefits of each food item included. Teacher will observe group planning and offer suggestions to improve balance and clarity.
Step – 03 (60 Minutes): Students will present their meal plans to peers and teacher. Students will explain the nutritional value and *Siddha* basis of each component, along with its intended health benefit in pediatric care. Students will engage in peer discussion and answer questions about food choices, child-specific adaptations, and traditional knowledge integration. Teacher will moderate discussions and provide clarifying comments.
Assessment (Final 30 Minutes):Teacher will assess student presentations using a checklist focused on nutrient completeness, cultural accuracy, therapeutic justification, and clarity of communication. Students will receive peer feedback to reflect on team performance and presentation quality.

Experiential-Learning 17.2 : Visual Learning Tools for Age-Specific *Siddha* Nutrition Education

Total Duration of the Activities: 3 Hours
This experiential learning session engages students in creating educational flashcards and posters that visually represent *Siddha* dietary recommendations for different age categories—pregnancy, infancy, childhood, and adolescence. Students will be divided into groups and assigned one age category each. They will research nutritional requirements and culturally appropriate *Siddha* foods, herbs, and regimens, then synthesize this information into teaching tools designed for public education and awareness.
Instructions to Students (First 20 Minutes): Teacher will divide students into small groups and assign each group one age category: pregnancy, infancy, childhood, or adolescence. Teacher will explain the expectations for designing flashcards and posters using *Siddha* dietary principles. Students will be instructed to research their age group's nutritional needs, identify appropriate *Siddha* foods and herbs, and highlight daily dietary routines and preventive guidelines. Teacher will encourage culturally aligned, community-friendly designs for outreach use.
Students' Activities
Step – 01 (70 Minutes): Students will design educational flashcards summarizing key nutrients, herbs, their functions, and related *Siddha* dietary practices. Students will include one flashcard per nutrient or food item, explaining its role in the assigned age group. Teacher will move between groups to provide guidance and clarify questions about *Siddha* dietetics.
Step – 02 (70 Minutes): Students will design a large-format visual poster that outlines complete dietary guidelines for the assigned age group. This will include a daily routine chart, meal suggestions, and preventive dietary measures rooted in *Siddha* nutrition. Students will focus on clarity, cultural accuracy, and visual appeal for community health education. Teacher will supervise and offer suggestions on format and content alignment.
Assessment (Final 20 Minutes): Students will present their posters and flashcards to peers and teacher. Teacher will use a checklist to assess content accuracy, visual clarity, educational value, and age-specific relevance. Peer feedback will focus on visual appeal, message clarity, and cultural applicability. Students will reflect on how visual tools can enhance *Siddha*-based nutritional education.

Experiential-Learning 17.3 : *Siddha*-Based Nutritional Planning for Pediatric Developmental Stages

Total Duration of the Activities: 3 Hours

This experiential session trains students to apply *Siddha* dietary principles to pediatric nutrition through the analysis of developmental-stage case studies. Each group will be assigned a pediatric case representing infancy, childhood, or adolescence, each with a unique nutritional challenge. Students will study growth requirements and formulate a *Siddha*-based nutritional plan that supports development, immunity, and vitality. This activity enhances critical thinking and contextual application of traditional dietetics to real-world pediatric care.

Instructions to Students (First 30 Minutes): Teacher will assign case scenarios representing different pediatric stages and explain the expectations of the task. Students will be instructed to identify the child's nutritional needs based on their growth stage and condition. Students will research *Siddha* dietary recommendations, focusing on specific foods, herbs, and remedies that align with principles of energy balance, tissue nourishment *(Udal Thathukkal),* and immune strengthening.

Students' Activities (Next 120 mins)

Step – 01 (60 Minutes): Students will analyze the assigned case and create a comprehensive, age-appropriate nutrition plan using *Siddha* dietary frameworks. Students will list foods, herbs, and recommended timings, explain their nutritional roles, and ensure the plan addresses specific deficiencies or developmental needs. Teacher will provide guidance and clarify doubts related to *Siddha* principles and therapeutic alignment.

Step – 02 (60 Minutes): Students will present their tailored diet plan to peers and faculty. Students will explain how their plan meets developmental needs, addresses presenting nutritional challenges, and supports growth and immunity through *Siddha*-based nutrition. Teacher will facilitate discussion, prompting comparisons between groups and highlighting variations across developmental stages.

Assessment (Final 30 Minutes):Teacher will evaluate presentations using a structured checklist that covers *Siddha* accuracy, age-stage alignment, therapeutic justification, and presentation clarity. A brief viva will assess individual understanding of how the proposed plan addresses nutritional gaps and aligns with *Siddha principles.* Peer feedback will be gathered on content clarity and cultural relevance.

Experiential-Learning 17.4 : *Siddha* Nutrition Planning for Pediatric Clinical Scenarios

Total Duration of the Activities: 4 Hours

This experiential session trains students to apply *Siddha* dietary principles in addressing pediatric nutritional challenges such as malnutrition, anemia, and inadequate weight gain. Students will work in groups to analyze assigned clinical case scenarios, identify nutritional gaps, and create customized *Siddha*-based nutrition plans. The activity emphasizes practical application, dietary planning skills, and the integration of *Siddha* herbs, foods, and animal products tailored to the child's needs.

Instructions to Students (First 30 Minutes): Teacher will assign one pediatric case scenario per group, each reflecting a unique nutritional issue. Teacher will explain how to assess the child's dietary deficiencies, research *Siddha*-based solutions, and structure age-appropriate, therapeutic nutrition plans. Students will be guided to include suitable herbs, animal products, meal timings, and daily quantities, ensuring alignment with *Siddha principles*.

Students' Activities (Next 180 mins)

Step – 01 (60 Minutes): Students will collaboratively develop a detailed nutrition plan for the assigned case. They will include specific *Siddha* foods and herbs *(e.g., Moringa, Karisalai, goat milk, etc.),* recommended portions, and frequency of administration. Each plan should reflect therapeutic objectives like improving hemoglobin,

increasing body weight, or enhancing immune resilience. Teacher will assist with references and case clarification.
Step – 02 (60 Minutes):Students will design visual aids such as charts or posters to support their case presentation. These materials will summarize the nutritional plan, highlight key *Siddha* dietary elements, and explain the rationale for each item's inclusion. Visuals should be clear, culturally relevant, and structured to facilitate practical implementation in real-life pediatric care.
Step – 03 (60 Minutes): Each group will present their nutrition plan to the class. Students will explain how the plan addresses specific deficiencies and how each food or herb contributes to growth, immunity, and well-being. The presentations will include visual aid usage and engage peers in discussion. Teacher will facilitate and encourage cross-case comparisons and practical reflections.
Assessment (Final 30 Minutes): Teacher will assess the student performance using a checklist focused on accuracy, therapeutic alignment, creativity of visual tools, and presentation clarity. A short viva will test understanding of case interpretation and nutritional reasoning. Peer feedback will contribute to reflective learning and collaborative evaluation.

Experiential-Learning 17.5 : Understanding *Siddha* Food Classifications and Their Role in Pediatric Health

Total Duration of the Activities: 3 Hours
This experiential session guides students through a deep exploration of *Siddha* classifications of food—*Vali, Azhal, Iyyam, and the Sattva, Rajo, Tamo Guna porulgal*—and how they relate to physical, emotional, and mental health in children. Through group discussions, research activities, and reflective writing, students will analyze real-life food examples, consider the consequences of imbalance, and propose strategies for pediatric dietary balance rooted in *Siddha* nutritional philosophy.
Instructions to Students (First 30 Minutes): Teacher will introduce *Siddha* food classifications and their philosophical foundation. Students will be encouraged to engage in active discussion, share prior knowledge, and listen to peers. Teacher will guide students to reflect on how food types influence emotions, immunity, and development in children, and provide direction for group-based tasks. Students will be asked to prepare examples of pediatric foods falling under each classification and explore how dietary equilibrium can support holistic growth.
Students' Activities
Step – 01 (40 Minutes):Students will identify and list common pediatric food items under each of the *Vali, Azhal, and Iyyam* categories and align them with the Guna classifications *(Sattva, Rajo, Tamo).* Teacher will facilitate this task using a library session and journal club discussion, guiding students to reference classical *Siddha* texts and recent scientific interpretations.
Step – 02 (40 Minutes):Students will engage in guided group discussions to explore the effects of imbalance in *Vali, Azhal, Iyyam* foods, and *Guna* types on children's mental health, emotional stability, and immunity. They will discuss how overconsumption or avoidance of certain food types may trigger behavioral, emotional, or physiological disturbances in pediatric populations. Teacher will moderate the session and provide insights into clinical relevance.
Step – 03 (40 Minutes):Students will individually write a reflective summary based on their discussion and learning. The summary will explore how balancing food types contributes to holistic pediatric care, incorporating Siddha logic and practical examples. Additionally, students will prepare visual charts or concept maps summarizing the classifications and their health impacts, to support peer learning and community education.
Assessment (Final 30 Minutes):Teacher will assess the reflective summaries and charts using a checklist focused on content accuracy, conceptual understanding, and clarity of communication. A brief discussion or viva may be conducted to validate student insights. Peer feedback will be collected on the clarity and usefulness of each group's

food classification chart, supporting collaborative evaluation and critical thinking.

Experiential-Learning 17.6 : Poster Presentation on Functional Foods in *Siddha*-Based Pediatric Nutrition

Total Duration of the Activities: 3 Hours

This experiential learning activity allows students to creatively apply *Siddha* nutritional principles by developing and presenting informative posters on functional foods used in pediatric diets. Each group will focus on one or more items such as honey, greens, or milk products, exploring their nutrient profiles, health benefits, and preventive roles in child growth and immunity. The session emphasizes the importance of visual communication, teamwork, and public health education in *Siddha* pediatric care.

Instructions to Students (First 20 Minutes): Teacher will introduce the concept of functional foods and their role in pediatric immunity and growth. Students will be divided into groups and assigned food categories. Teacher will instruct students to design posters that include nutrient content, therapeutic benefits, *Siddha*-based usage guidelines, and simple dietary recommendations. Students will be encouraged to use visuals, symbols, color coding, and culturally relevant themes to engage and educate their audience.

Students' Activities

Step – 01 (70 Minutes): Students will collaboratively research and design their group posters. Each group will gather accurate data on the assigned functional foods (e.g., honey's immune-boosting effects, greens for iron and minerals, milk for bone strength), then create a visually engaging and educational poster. Teacher will observe and provide support in ensuring content alignment with *Siddha principles.*

Step – 02 (70 Minutes):Each group will present their completed poster to the class. Students will explain the food's nutrient contributions, health benefits, and traditional *Siddha* recommendations for pediatric use. Presentations will also address how these foods contribute to long-term immunity, growth, and preventive health. Students will reflect on the importance of cultural dietary practices in sustaining pediatric wellness.

Assessment (Final 20 Minutes):Teacher will assess posters and presentations using a checklist focused on scientific accuracy, clarity of visual content, application of *Siddha* knowledge, and presentation skills. Peer feedback will be collected to support collaborative learning and evaluate poster impact and creativity. A brief reflection may be requested from each group to reinforce knowledge integration.

Experiential-Learning 17.7 : Role Play on *Siddha*-Based Dietary Consultation for Common Pediatric Illnesses

Total Duration of the Activities: 3 Hours

This experiential session simulates pediatric clinical consultations through structured role play to help students apply *Siddha* dietary principles in managing common childhood illnesses. Each group will be assigned a case scenario and will assume roles such as pediatrician, nutritionist, caregiver, and patient. The session emphasizes dietary modifications such as easily digestible foods, thiratchi preparation, hydration guidance, and herbal decoctions for balancing *thodam.* The activity fosters clinical communication, collaborative learning, and accurate application of traditional dietetics in a simulated real-world setting.

Instructions to Students (First 20 Minutes): Teacher will form small groups and assign each a pediatric illness scenario (e.g., fever, diarrhea, cough, indigestion). Students will be guided to create a script for the consultation, ensuring roles communicate effectively, *Siddha* dietary recommendations are accurate, and empathy is shown towards the caregiver and child. Teacher will emphasize the importance of language, body cues, and structured delivery.

Students' Activities

Step – 01 (70 Minutes): Students will conduct their role play, performing a realistic pediatric consultation based on the assigned case. Each group will demonstrate *Siddha* dietary advice including selection of suitable foods, hydration strategies (e.g., thin rice gruel, boiled water), herbal decoctions, and explanations grounded in *thodam* balance. Teacher will observe and note key communication and therapeutic points.
Step – 02 (70 Minutes): Students will reflect on their performance, highlighting what worked well and what could be improved. Groups will receive structured peer and faculty feedback on communication, empathy, and accuracy of dietary advice. Each group will document key learning points related to *Siddha* dietary planning and patient interaction, focusing on practical application and community relevance.
Assessment (Final 20 Minutes): Teacher will assess group performance using a communication and accuracy checklist, focusing on the integration of *Siddha* dietary principles, clarity of consultation, empathy, and role execution. Peer feedback will contribute to the evaluation of teamwork and consultation flow. A brief reflective summary will be collected from each group for final learning consolidation.

Experiential-Learning 17.8 : *Siddha* Dietary Management for Common Pediatric Disorders

Total Duration of the Activities: 3 Hours
This experiential learning activity enables students to practically apply *Siddha* dietary principles in the management of common pediatric disorders. Students will be divided into groups and assigned case scenarios related to (1) respiratory and digestive disorders, (2) skin and neurological conditions, and (3) childhood fever and infectious diseases. Each group will analyze their case, identify thodam involvement, and formulate diet plans including foods to avoid and encourage, appropriate decoctions, hydration techniques, and supportive regimens. The session focuses on understanding thodam balance, practical food selection, and age-appropriate dietary applications.
Instructions to Students (First 20 Minutes): Teacher will assign each group a pediatric scenario covering respiratory/digestive, dermatological/neurological, or febrile/infectious conditions. Teacher will guide students to assess symptoms, identify involved thodam, and formulate appropriate *Siddha* dietary interventions. Students will be instructed to prepare diet charts including suitable foods, herbal fluids, feeding schedules, and foods to avoid.
Students' Activities
Step – 01 (70 Minutes): Students will work in groups to analyze the case, identify the disorder's nature and *thodam* predominance *(Vali, Azhal, Iyyam)*, and research classical *Siddha* dietary guidelines for the assigned condition. Students will develop a complete diet plan for the child, including rationale for each food item, thiratchi or decoction suggestions, and feeding guidelines.

Step – 02 (70 Minutes): Students will prepare a poster or diet chart and present their diet plan to the class. They will explain how each element of the diet aligns with *Siddha principles,* supports symptom resolution, and promotes *thodam* balance. Discussion will include preventive and restorative dietary measures and integration into home and hospital care.
Assessment (Final 20 Minutes): Teacher will evaluate group presentations using a checklist covering dietary accuracy, *Siddha* rationale, clarity of explanation, and presentation style. Peer feedback will assess group communication and practical relevance. A short viva may be conducted to test individual understanding of disease-diet correlation and application in clinical *Siddha* pediatrics.

Modular Assessment

Assessment method	Hour
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 6C. Section A - 25 Marks - ABQ/ LAQ/SAQ & Section – B. This 25-mark modular assessment evaluates students' understanding of Siddha pediatric nutrition through an integrative Word Puzzle activity, an Online Quiz, and a Viva voce session. It assesses conceptual clarity, terminology recall, and applied knowledge of Siddha dietary principles, therapeutic food classifications, and case-based nutritional management strategies. Instructions to Students: Students will participate in three components: a Word Puzzle on Siddha dietary terms and herbs, an Online Quiz with 10 questions on nutritional principles and disease-based diets, and a Viva voce based on clinical scenarios. Prepare to explain Siddha-based nutritional choices and therapeutic food applications. Reference material is not allowed. Instructions to Teachers: Prepare a word puzzle grid with terms from Module 17. Design an online quiz with MCQs and short answers covering digestion, immunity, and Siddha diet plans. Conduct viva with case triggers on disorders like *Suram*, *Valippu*, or developmental delay. Use rubrics for uniform scoring. Mark Distribution: Marks are distributed across three assessment components. The Word Puzzle Activity carries 8 marks and evaluates the identification and matching of Siddha nutrition terms. The Online Quiz, worth 7 marks, tests understanding of pediatric Siddha dietary theory. The Viva Voce awards 10 marks for case-based reasoning and verbal justification of *Siddha* diet plans. Total – 25 Marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).	4

Module 18 : ???????????? ?????????? ??????? ???? ????????? ????? ???????? ???? ??????? - Kuzhanthaigalin Arogyam Matrum Noi Nilaigalil Siddha Maruthuva Unavu Muraigal (Siddha Based Dietary Practices in Pediatric Health and Diseases)

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

Describe Siddha-based strategies for preventing malnutrition in children.
Identify Siddha interventions for common pediatric nutritional deficiencies.
Assess pediatric nutritional status using Siddha and modern tools.

Apply dietary principles like *Pathiyam and Thegigal* in clinical nutrition.
Evaluate the role of Siddha nutrition in immunity and digestion.
Analyze case studies on Siddha dietary management in pediatric disorders.

M 18 Unit 1 ??????????? ???????????? ???????????? ????? ???????? ???? ??????? – Oottasaththu Kuraipattai Thaduppatharkana Siddha Maruththuva Unavu Muraigal - Siddha Approach to Preventing Malnutrition

18.1.1 Preventing Primary and Secondary Malnutrition – Etiology differentiation, Siddha dietary protocols, traditional food usage, holistic nourishment, pediatric nutritional safeguarding.
18.1.2 Nutrition and Immunity in Siddha – Immune enhancement, *Kayakarpam* application, herbal boosters, infection resistance, long-term pediatric health promotion.
18.1.3 Siddha Management of Nutritional Deficiencies – Anemia correction, vitamin restoration, *Pothu Karpam, Sirappu Karpam*, nutrient-rich herbal intervention, developmental support.
18.1.4 Support for Children Not Receiving Enough Breast Milk – *Panchamutti Kanji, Aarootma Kanji, Barli Kanji* application, lactation enhancement, infant nourishment, breastfeeding assistance.
18.1.5 Failure to Thrive and Malnutrition Prevention in Siddha – Growth support, failure-to-thrive reversal, balanced *Siddha* food combinations, herbal supplementation, developmental nutrition.

References: 36,43,95,125

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO6	Describe primary and secondary malnutrition and the importance of balanced nutrition for children.	1	Lecture	CC	Knows-how	PL,TBL,L&GD
CO1,CO4	Discuss Siddha practices for enhancing immunity, managing nutritional deficiencies through herbal formulations like Kayakarpam	1	Lecture	CC	Know	TBL,L&GD
CO4,CO6,CO7	Document and present *Siddha*-based nutritional strategies for enhancing pediatric	2	Practical	CAP	Shows-	SDL,LS,P

	immunity.		Training 18.1		how	L
CO3,CO4,CO6	Apply *Siddha* formulations and dietary principles to manage pediatric nutritional deficiencies.	2	Practical Training 18.2	CAP	Shows-how	BL,DIS
CO2,CO3,CO4	Synthesize and present *Siddha* dietary strategies for enhancing immunity and managing nutritional deficiencies in children	4	Experiential-Learning 18.1	CS	Does	TPW,SY,DIS,PER
CO3,CO4,CO5	Design and demonstrate *Siddha*-based milk substitutes with entrepreneurial applications	4	Experiential-Learning 18.2	PSY-ORG	Does	PAL,TBL,D,SIM

M 18 Unit 2 ???????? ???? ?????????? ????? ???????? ???? ???????????? ????????????? – Vazhakkamana Unavu Muraikaludan Siddha Maruthuva Unavu Muraikalain Orunginaippu - Integration of Siddha and Conventional Dietary Practices

18.2.1 Clinical Evaluation and Anthropometry – Nutritional status assessment, Siddha diagnostic integration, growth monitoring, anthropometric measurement, pediatric health evaluation.
18.2.2 Nutrient Intake and Traditional Siddha Beverages – Traditional beverages usage, digestion support, immunity boosting, beverage-based nourishment, pediatric dietary inclusion.
18.2.3 Amylase-Rich and Traditional Malt Foods in Siddha – Digestive enzyme enhancement, malt-based nutrition, absorption improvement, gastrointestinal health promotion, pediatric diet fortification.
18.2.4 Balancing Siddha and Modern Nutritional Guidelines – Holistic dietary alignment, nutrition guideline synthesis, Siddha-modern integration, child health harmonization.
18.2.5 Siddha-Based Nutritional Concepts in Classical Texts – *Padhartha Guna Chinthamani* principles, *Thirukkural* references, classical dietary wisdom, Siddha nutrition relevance.

References: 27,43,90

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

CO1,CO4	Explain and integrate of Siddha and conventional dietary practices for pediatric health by exploring Siddha's traditional diagnostic methods alongside modern anthropometric assessments.	1	Lecture	CC	Knows-how	L,L&PPT ,L&GD
CO3,CO4,CO6	Demonstrate pediatric anthropometric techniques and interpret clinical indicators of nutritional status.	2	Practical Training 18.3	PSY-GUD	Shows-how	CBL
CO3,CO4,CO5	Prepare *Siddha* herbal beverages that promote general health in children	3	Experiential-Learning 18.3	PSY-GUD	Does	DL,W,TBL
CO4,CO5,CO6	Integrate *Siddha* and modern nutrition guidelines for child health promotion	4	Experiential-Learning 18.4	PSY-ORG	Does	W,PrBL,PL,D
CO3,CO4,CO6	Analyze classical *Siddha* dietary concepts and integrate them with modern nutritional understanding.	2	Practical Training 18.4	CAN	Shows-how	DIS,JC,TPW
CO1,CO4	Describe anthropometry principles, measurements, and applications in assessing pediatric growth and nutritional status.	1	Lecture	CC	Knows-how	L,L&GD
CO1,CO4	Develop Siddha-based amylase-rich and traditional malt foods for pediatric nutritional support and digestive health.	1	Lecture	CS	Knows-how	LS,ML,PL

M 18 Unit 3 ????? ???????? ???? ??????? ????????????? – Siddha Maruthuva Unavu Muraikalai Seiyalpaduthuthal - Practical Implementation of Siddha Dietary Practices

18.3.1 Diet History and Dietary Intake Assessment – Siddha-based diet evaluation, intake analysis, individualized nutrition planning, pediatric growth monitoring, dietary pattern identification.
18.3.2 *Pathiyam* and Dietary Restrictions in Pediatrics – Therapeutic food restrictions, illness-specific diets, energy balance restoration, recovery enhancement, Siddha dietary discipline.

18.3.3 Customizing Diets Based on *Thegigal – Udal vanmai*-based diet planning, *mukkutra* alignment, immune function support, growth-focused dietary personalization.
18.3.4 Hydration and Water Quality in Pediatric Health – *Neeragarathin Kunam* principles, hydration practices, digestive health influence, metabolic regulation, pediatric fluid intake.
18.3.5 Dietary Adjuncts in Pediatric Siddha Medicine – *Marunthirku Aga Patharthangal* role, herbal-food synergy, recovery support, therapeutic food pairing, clinical nourishment enhancement.

References: 27,37,47,68,89,116

3A	3B	3C	3D	3E	3F	3G
CO3,CO4,CO6	Analyze and apply illness-specific dietary restrictions to support recovery in pediatric *Siddha care.*	2	Practical Training 18.5	CAN	Shows-how	LS,IBL
CO1,CO4	Describe Pathiyam principles and its role in disease recovery and health restoration.	1	Lecture	CC	Knows-how	L&PPT ,L&GD,L
CO1,CO4	Describe Siddha dietary principles through pediatric diet history and intake assessment evaluations.	1	Lecture	CC	Knows-how	PAL,L& GD
CO4,CO6,CO7	Apply *Siddha principles* to pediatric hydration and assess water quality impacts on child health.	2	Practical Training 18.6	CAP	Shows-how	EDU,PA L
CO5,CO6,CO7	Evaluate and argue perspectives on *Siddha* pediatric dietary practices	4	Experiential-Learning 18. 5	CE	Does	D,PER,B L,PL,RP
CO4,CO6,CO7	Apply *Siddha* principles to plan dietary adjuncts and personalize diets based on *Thegigal and Udal Vanmai.*	2	Practical Training 18.7	CAP	Shows-how	D,PSM

CO1,CO4	Discuss disease specific diets based on the child’s Thegigal (constitution) .	1	Lecture	CS	Knows-how	PER,PL,LS

M 18 Unit 4 ??????? ????????????? ????? ???????? ??????????? ???? ??????? ???????? – Kuzhanthai Maruthuathil Siddha Maruthuva Oottasaththu Unavu Kuriththa Aaivugal Case Studies on Siddha Nutrition in Pediatrics

18.4.1 Case Studies on Managing Pediatric Malnutrition – Nutritional restoration, traditional food application, herbal supplementation, growth promotion, malnutrition reversal documentation.
18.4.2 Case Studies on Pediatric Digestive Disorders – Indigestion resolution, gastrointestinal balance, Siddha intervention outcomes, diet-based recovery success, clinical digestive care.
18.4.3 Case Studies on Respiratory Conditions in Children – Asthma, respiratory symptom control, dietary support effectiveness, breath health enhancement, Siddha nutrition role.
18.4.4 Case Studies on Boosting Immunity in Pediatric Health – Infection reduction, immune strength improvement, dietary immunity boosters, herbal functional food use, resilience building.
18.4.5 Case Studies on Siddha Nutrition for Children with Special Needs – Cognitive growth support, physical development tracking, customized diet outcomes, functional enhancement, pediatric rehabilitation through nutrition.

References: 27,47,89,90,116

3A	3B	3C	3D	3E	3F	3G
CO1,CO4	Discuss Siddha-based dietary interventions in pediatric respiratory and digestive disorders.	1	Lecture	CAN	Knows-how	L&GD,L &PPT ,L
CO4,CO6,CO7	Demonstrate clinical skills in evaluating and managing pediatric malnutrition using *Siddha* dietary principles.	2	Practical Training 18.8	PSY-MEC	Shows-how	PL,CBL
CO3,CO4,CO6	Analyze *Siddha*-based dietary interventions for digestive recovery in pediatric clinical cases.	2	Practical Training 18.9	CAN	Shows-how	CBL,PAL
CO4,CO6,CO7	Perform Case Studies on *Siddha* Dietary Advice for Pediatric Respiratory Conditions	2	Practical	CAP	Shows-	CBL,PS

			Training 18.10		how	M
CO3,CO4,CO5	Formulate case-based nutrition management guidelines using *Siddha* dietary principles for pediatric conditions	4	Experiential-Learning 18.6	CS	Does	CBL,DIS,PL,TPW
CO1,CO4,CO7	Document integrated *Siddha* and scientific dietary approaches tailored to various special pediatric conditions	3	Experiential-Learning 18.7	CAP	Does	CBL,PL,PrBL
CO1,CO4	Discuss Siddha-based dietary interventions to enhance immunity and to prevent malnutrition in pediatrics.	1	Lecture	CAN	Knows-how	PER,LS,PL

Practical Training Activity

Practical Training 18.1 : Documentation and Assignment Submission on *Siddha*-Based Pediatric Nutrition and Immunity

Total Duration of the Activities: 2 Hours

This session guides students in the structured documentation and assignment preparation on the topic of pediatric nutrition and immunity enhancement through *Siddha principles*. Students will consolidate their understanding of age-specific diet, immune-boosting foods, classical *Siddha* guidelines, and create well-organized reports or visual submissions (charts, posters, or creative infographics) that reflect clinical and academic integration.

Instructions to Students (First 20 Minutes): Teacher will orient students on the expected format and scope of the assignment, including required topics such as *Siddha* dietary classifications, functional foods, *paatiyam* and seasonal immune planning. Guidelines for clear writing, citing classical sources, and formatting will be provided. Students will be allowed to use personal notes, charts, and references for compilation.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will work individually or in pairs to prepare their final assignment drafts, including written documentation, food charts, and immunity-nutrition correlation based on *Siddha* medicine. They will incorporate case references, food lists, and supportive textual citations. Formatting, clarity, and completeness will be emphasized.

Step – 02 (Next 40 Minutes): Students will finalize their documents and submit assignments for trainer review. Each student will exchange their assignment with a peer for quick feedback using a structured peer review checklist. Selected students may present their summary or a poster version for class discussion to promote collaborative learning.

Assessment Methods (Final 20 Minutes): Teacher will assess assignments using a detailed checklist for content accuracy, *Siddha* integration, and format quality. Peer assessment will be used to provide feedback on clarity and structure. A trainer's report will reflect the student's effort, engagement, and consistency across the nutrition and

immunity learning module.

Practical Training 18.2 : *Siddha*-Based Pediatric Management of Nutritional Deficiencies

Total Duration of the Activities: 2 Hours
This session focuses on the *Siddha*-based approach to managing nutritional deficiencies in children, including pediatric anemia, vitamin deficiencies, and developmental lag. Students will explore classical formulations like *Pothu Karpam and Sirappu Karpam*, and identify herbal, mineral, and dietary interventions used in *Siddha* pediatrics for growth and vitality. They will consolidate this knowledge into visual and written formats.
Instructions to Students (First 20 Minutes): Teacher will introduce the clinical signs and causes of nutritional deficiencies in children, followed by *Siddha principles* of *Udal kattugal* nourishment, *karpam* use, and digestive fire balance. Students will receive digital resources (PDFs, images, video clips of preparations) and be guided to identify key herbal and mineral interventions that support hematopoiesis, bone development, and cognitive growth.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will engage in interactive discussions to list common *Siddha* ingredients used in pediatric anemia, vitamin deficiencies, and general debility. They will compile this into a portfolio or booklet including indications, preparation methods, dosage, and age-based safety adjustments for both *Pothu Karpam* and *Sirappu Karpam* formulations.
Step – 02 (Next 40 Minutes): Each group will design a poster showcasing a *Siddha* protocol for correcting one pediatric deficiency. The poster will include herbal formulas, supportive diet, timelines for improvement, and methods of caregiver education. Students will refer to classical texts and modern observations while presenting case-linked application of the therapy.
Assessment Methods (Final 20 Minutes): Teacher will assess compilation portfolios for accuracy, completeness, and alignment with *Siddha* pediatric principles. Posters will be evaluated for visual clarity, therapeutic relevance, and communication skills. Peer feedback will be invited for creativity and content delivery, helping reinforce the integration of classical knowledge into modern pediatric nutritional care.

Practical Training 18.3 : Pediatric Clinical Evaluation and Anthropometry for Nutritional Assessment

Total Duration of the Activities: 2 Hours
This session trains students in clinical evaluation techniques and anthropometric measurements essential for assessing the nutritional and growth status of children. Using real-life scenarios, students will perform measurements such as weight, height, Mid upper arm circumference (MUAC), head circumference, and interpret findings using growth charts and clinical indicators. Emphasis is placed on identifying malnutrition, developmental delay, and correlating findings with *Siddha* and modern understanding.
Instructions to Students (First 20 Minutes): Teacher will provide an overview of key anthropometric tools and pediatric evaluation criteria. Students will be introduced to a clinical case scenario (e.g., undernourished infant, stunted toddler) and briefed on procedures such as growth chart plotting, BMI interpretation, and clinical signs of nutritional deficiency. Early exposure to clinical environments or simulated setups will be included to build real-time familiarity.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will work in pairs to perform anthropometric measurements on mannequins or simulated patients. They will record weight-for-age,

height-for-age, weight-for-height, and Mid upper arm circumference (MUAC). Using Indian Academy of Pediatrics or World Health Organization growth charts, they will interpret the child's nutritional status and classify it (e.g., Severe Acute Malnutrition, Moderate Acute Malnutrition,normal). They will also document clinical signs such as edema, hair changes, or visible rib cage.
Step – 02 (Next 40 Minutes): In groups, students will analyze their case scenario and prepare a nutritional status report integrating clinical findings and measurement outcomes. Each group will present their diagnostic reasoning, suggested interventions, and discuss the *Siddha* interpretation of undernourishment, linking it to Udal kattugal depletion, digestive fire loss, and need for supportive therapy.
Assessment Methods (Final 20 Minutes):Teacher will conduct an OSCE-style assessment where students rotate through stations to perform and explain measurements and findings. A case-based assessment will evaluate their clinical interpretation and reasoning. Feedback will focus on accuracy, diagnostic confidence, and communication clarity during patient interaction and clinical documentation.

Practical Training 18.4 : Scientific Integration of *Siddha* Nutritional Concepts from Classical Texts

Total Duration of the Activities: 2 Hours
This session emphasizes the scientific exploration of *Siddha* nutritional concepts drawn from classical sources such as *Padhartha Guna Chinthamani and Thirukkural,* encouraging students to integrate ancient dietary wisdom with contemporary nutritional science. Students will analyze textual excerpts, correlate them with food pharmacology, and apply the principles to pediatric nutrition models using collaborative writing and research compilation.
Instructions to Students (First 20 Minutes): Teacher will provide an introduction to *Siddha* nutritional theory with specific focus on *Padhartha Gunam* (qualities of substances) and ethical dietary guidelines from *Thirukkural*. Students will be grouped and assigned a thematic focus (e.g., nutrition for growth, digestion, immunity, or mental clarity). Each group will receive journal excerpts and classical text passages for interpretation and discussion.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will conduct a journal club review analyzing references to *Siddha* dietary substances, their *guna, suvai, and veeriyam,* and how these align with modern nutrient functions such as protein building, immunomodulation, or digestion support. They will compile their findings into a portfolio highlighting textual evidence, therapeutic use, and pediatric relevance.
Step – 02 (Next 40 Minutes): Each group will prepare a creative writing assignment in the form of a reflective essay, health poem, or educational script integrating classical dietary principles with pediatric care. This will involve interpretation of *Thirukkural lines*, traditional food combinations, and real-world examples for integrating *Siddha* nutrition into daily practice.
Assessment Methods (Final 20 Minutes):Teacher will assess compilations for depth, textual integration, and relevance to pediatric nutrition. The creative writing output will be evaluated for expression, clarity, critical thought, and cultural authenticity. Peer sharing and brief presentations will be encouraged to reinforce collaborative learning and multidimensional understanding of *Siddha* dietary frameworks.

Practical Training 18.5 : *Pathiyam* and Therapeutic Dietary Restrictions in *Siddha* Pediatric Practice

Total Duration of the Activities: 2 Hours

This session focuses on *Pathiyam*—the *Siddha* therapeutic dietary discipline—and its application in managing illness-specific dietary restrictions for children. Students will explore how controlled food intake, suited to humoral imbalances, supports energy restoration, recovery acceleration, and recurrence prevention in conditions like fever, respiratory illness, skin diseases, and digestive disorders.

Instructions to Students (First 20 Minutes): Teacher will introduce the *Siddha* concept of *Pathiyam* and *Apathiyam*, emphasizing their role in disease-specific recovery, with examples from classical texts. Students will be given guided access to library sources (books, manuscripts, and indexed papers) and assigned a pediatric condition to investigate dietary restrictions and supporting foods for that illness.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will conduct a guided library session, locating references to *Pathiyam* guidelines for their assigned pediatric condition (e.g., *Irumal, Suram, Kazhichal,* Eczematous skin lesions). Each student will prepare a critical reading paper summarizing key restrictions, reasoning behind them, supportive foods, and *Siddha* principles such as suvai, veeriyam, and dosha balancing.

Step – 02 (Next 40 Minutes): Students will exchange their reading papers in small groups and conduct a peer assessment discussion, evaluating each other's interpretation of dietary logic, textual clarity, and practical application. They will debate the importance of food timing, texture, quantity, and avoidance of trigger items based on both classical insight and clinical experience.

Assessment Methods (Final 20 Minutes):Teacher will assess the critical reading papers for depth of textual analysis, illness-specific relevance, and clarity. Peer assessment will focus on reflective feedback, comparative insight, and engagement in discussion. Emphasis will be placed on the student's ability to independently apply Pathiyam principles in pediatric *Siddha* dietary management.

Practical Training 18.6 : Hydration Practices and Water Quality in Pediatric *Siddha* Care

Total Duration of the Activities: 2 Hours

This session focuses on the importance of hydration and water quality in pediatric health, integrating *Siddha* concepts such as *Neeragarathin Kunam* (qualities of drinking water). Students will explore how hydration influences digestion, thermoregulation, metabolic activity, and illness recovery. The session will also examine age-appropriate water intake, seasonal variations, and safety considerations.

Instructions to Students (First 20 Minutes): Teacher will explain *Siddha principles* on water quality, including temperature, taste, source, timing, and compatibility with body humor balance. Students will be grouped and introduced to a game-based activity and video clips to enhance understanding of hydration errors, fluid balance, and water types. Each group will be assigned a subtopic to research and teach peers.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): In a peer-assisted format, each group will study their assigned topic (e.g., warm water benefits, hydration during fever, seasonal water changes, or mineral-rich water). They will prepare a short skit, quiz, or infographic on their topic and teach their peers using edutainment methods such as storytelling, flashcards, or water-themed interactive visuals.

Step – 02 (Next 40 Minutes): Each group will deliver a class presentation summarizing their topic, including the *Siddha* rationale, modern pediatric hydration needs, and tips for caregivers. Presentations will focus on fluid intake recommendations, signs of dehydration, *Siddha*-compatible drinks (like jeeraga water, vetiver infusion), and recommendations for clean water practices in pediatric health.

Assessment Methods (Final 20 Minutes):Teacher will assess class presentations for clarity, organization, and accuracy using a structured checklist. Presentation performance will also be evaluated for communication effectiveness and creative delivery. Peer feedback will be encouraged to enhance reflection and learning, reinforcing both scientific and *Siddha*-based hydration practices for pediatric wellness.

Practical Training 18.7 : Dietary Adjuncts and *Thegigal*-Based Customization in Pediatric *Siddha Nutrition*

Total Duration of the Activities: 2 Hours

This session trains students in the identification and clinical application of dietary adjuncts *(Marunthirku Aga Patharthangal)* that enhance the action of *Siddha* medications, and customization of pediatric diets based on *Thegi* classification *(Vali, Azhal, Iyam)* and *Udal Vanmai* (body vitality). Students will explore therapeutic food pairing, immunity-focused combinations, and growth-supportive nutrition aligned with the child's constitution.

Instructions to Students (First 20 Minutes): Teacher will introduce the concept of dietary adjuncts in *Siddha*—food substances that support or potentiate medicine, such as *panangkarkandu, ghee, jeeragam, thaalicha nei,* and their role in recovery. The principles of Thegigal-based diet customization and *Udal Vanmai*-based nourishment will be discussed. Students will receive sample pediatric profiles with constitutional types to design personalized dietary adjunct plans.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes):Students will identify appropriate herbal-food combinations for specific pediatric illnesses *(e.g., Irumal, Kazhichal, Manthara Noi),* and prepare a chart showing adjunct foods, mode of administration, timing with medicine, and contraindications. They will use *Thegigal* identification to align the diet with *mukkutram* balance and *Udal Vanmai* level.

Step – 02 (Next 40 Minutes): Students will present a personalized diet plan based on *Thegigal* dominance (e.g., Vali-prone child needs warming and moist foods; *Azhal*-predominant child needs cooling, bitter-sweet items). Each group will simulate explaining their dietary strategy to a caregiver, linking it with recovery support and long-term nourishment enhancement.

Assessment Methods (Final 20 Minutes): Teacher will assess the dietary charts for clarity, *Siddha* accuracy, and therapeutic alignment. A practical viva will evaluate each student's ability to correlate adjunct foods with medicine, customize diets based on *Thegigal,* and explain clinical relevance in pediatric *Siddha care.* Feedback will focus on strengthening integrative thinking and communication.

Practical Training 18.8 : Managing Pediatric Malnutrition – *Siddha* Nutritional Restoration and Documentation

Total Duration of the Activities: 2 Hours

This session enables students to clinically evaluate and manage pediatric malnutrition, integrating *Siddha* principles such as traditional food use, herbal supplementation, digestive fire enhancement, and *Udal kattugal* support. Students will apply structured nutritional restoration strategies, perform case documentation, and engage in real-time simulation through clinical stations.

Instructions to Students (First 20 Minutes): Teacher will explain types and stages of pediatric malnutrition (e.g., SAM, MAM), the role of *Siddha* traditional foods (*ulunthu kali, siru dhaaniya preparations*), and *karpam* or herbal support. Students will be introduced to structured clinical scenarios and divided into rotating groups for Mini-CEX and OSCE participation.

Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will participate in a Mini-CEX, where each student will engage with a simulated pediatric malnutrition case. They will take dietary and growth history, perform anthropometry, and propose a *Siddha*-based nutritional intervention plan. Students must explain how their approach supports digestive correction, weight gain, immunity, and milestone recovery.
Step – 02 (Next 40 Minutes): Students will rotate through OSCE stations to interpret growth monitoring charts, prepare a weekly *Siddha*-based nutrition plan, and explain dietary changes to caregivers. They will also identify suitable herbal *karpam* and food combinations, and complete a malnutrition reversal record, demonstrating practical documentation and clinical decision-making skills in pediatric *Siddha* nutrition.
Assessment Methods (Final 20 Minutes):Teacher will conduct a Practical Viva to assess the student's grasp of *Siddha* dietary logic, symptom-to-food mapping, and rationale behind herbal interventions. Practical Performance will be assessed during OSCE stations using structured checklists to evaluate measurement accuracy, communication, documentation, and case planning effectiveness.

Practical Training 18.9 : Case Studies on *Siddha* and Traditional Nutrition in Pediatric Digestive Disorders

Total Duration of the Activities: 2 Hours
This session provides students with real-world case-based learning on pediatric digestive disorders such as indigestion, flatulence, abdominal discomfort, and irregular bowel patterns, managed through *Siddha* dietary principles and traditional food practices. Students will explore case histories, identify digestive disturbances, and evaluate the success of diet-based *Siddha* interventions in restoring gastrointestinal balance.
Instructions to Students (First 20 Minutes):Teacher will introduce *Siddha* perspectives on pediatric digestive issues—explaining causes rooted in *Azhal* derangement, *Mandagni* (weak digestion), and improper food combinations. Sample case studies will be shared, highlighting the role of traditional preparations like *pacharisi kanji, rasam, milagu jeeraga rasam, and thaalicha thayir.* Students will be grouped and assigned specific clinical cases for review.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will work in pairs to review a case study involving a pediatric digestive disorder. They will identify symptoms, contributing food habits, and gastrointestinal patterns, then analyze the outcomes of *Siddha* dietary corrections. They will summarize how traditional food, age-specific food texture, timing, and gut-soothing diets contributed to recovery.
Step – 02 (Next 40 Minutes):Each group will present their findings, outlining the dietary protocol used, symptom changes, and gastrointestinal improvements. They will also reflect on possible *Siddha* formulations or home remedies that supported recovery and offer alternative food strategies based on seasonal needs or child's constitution (*Udal thathu* consideration).
Assessment Methods (Final 20 Minutes):Teacher will assess students using a case-based assessment rubric, focusing on clinical insight, dietary relevance, and understanding of *Siddha* gastrointestinal principles. A practical viva will test the student's ability to justify food selection, interpret digestive signs, and propose modifications based on traditional pediatric digestive care.

Practical Training 18.10 : Apply *Siddha* dietary principles to manage respiratory conditions in pediatric clinical cases.

Total Duration of the Activities: 2 Hours

This session explores case studies of pediatric respiratory conditions such as asthma, chronic cough, and nasal congestion, highlighting *Siddha*-based dietary strategies that contribute to respiratory symptom relief and breath health enhancement. Students will review clinical outcomes linked to *Siddha food principles*, identify respiratory-supportive ingredients, and formulate age-specific dietary protocols.

Instructions to Students (First 20 Minutes): Teacher will introduce *Siddha concepts* related to *Irumal, Suram,* and related respiratory issues, explaining the dietary guidelines *(Pathiyam)* for reducing *Iyam and Azhal* accumulation. Students will examine classical food items such as *milagu rasam, tulasi juice, elumichai kanji,* and *karpooravalli decoctions*. Each group will be assigned a respiratory case study and instructed to identify beneficial food and herb interventions.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will analyze the assigned case and identify suitable respiratory-supportive *Siddha* foods and herbs based on symptoms and stage of illness. They will use a problem-solving approach to decide on meal timing, preparation methods, and the exclusion of aggravating items. If resources allow, a short lab demonstration of food or decoction preparation will be conducted.

Step – 02 (Next 40 Minutes): Each group will design and present a *Siddha*-based diet plan for respiratory health, including rationale for each component—such as mucus-thinning, immunity-boosting, or anti-inflammatory effects. Presentations will cover diet scheduling, food combinations, and strategies for dietary compliance in pediatric patients.

Assessment Methods (Final 20 Minutes): Teacher will use a case-based assessment rubric to evaluate dietary logic, *Siddha* relevance, and clinical applicability. A practical viva will assess understanding of food-to-symptom correlation, decision-making accuracy, and integration of *Siddha* dietary principles in respiratory condition management for children.

Experiential learning Activity

Experiential-Learning 18.1 : Symposium on *Siddha* Nutrition for Pediatric Immunity and Nutritional Deficiency Management

Total Duration of the Activities: 4 Hours

This 4-hour experiential symposium workshop enables students to research, create, and present integrated strategies for *Siddha*-based nutritional management in children. The focus is on enhancing immunity and addressing nutritional deficiencies through traditional *Siddha* foods, herbal supplements, and evidence-informed formulations. Students will develop presentations supported by visual tools such as charts, slides, posters, and traditional meal plans. The activity promotes teamwork, critical thinking, application of classical concepts, and public health education through interactive learning and peer engagement.

Instructions to Students (First 20 Minutes): Teacher will introduce the symposium theme and divide students into small groups. Each group will be assigned a topic related to *Siddha* pediatric nutrition—such as immune-boosting formulations, herbs for anemia, dietary regimens for deficiency correction, or seasonal dietary practices for disease prevention. Teacher will provide guidelines for structuring content, citing classical references, and integrating evidence-based nutrition principles. Students will be instructed to plan their presentations using visuals and prepare to engage their peers.

Students' Activities

Step – 01 (100 Minutes):Students will collaborate to research their assigned topic using classical *Siddha* texts and supporting scientific literature. Each group will identify

functional foods, herbal preparations *(e.g., Amukkara, Nellikkai, Karisalai)*, immune-building regimens *(e.g., lehyam, chooranam)*, and their relevance in pediatric care. Students will also document the food's nutritional content, therapeutic uses, and traditional preparation techniques. Teacher will guide students in evaluating evidence and aligning practices with *Siddha principles.*

Step – 02 (100 Minutes): Students will develop creative visual aids such as posters, digital slides, infographics, or charts that highlight the nutritional components, health benefits, and dietary use of selected items. Each group will structure a presentation focusing on immunity enhancement and deficiency correction in children, supported by examples of *Siddha*-compatible meal plans. Teacher will monitor group progress, offer design feedback, and ensure alignment with educational goals.

Assessment and Presentation (Final 20 Minutes):Each group will deliver a presentation to the class using their visual aids. Students will explain the *Siddha* rationale behind each recommendation, link their strategies to specific pediatric health outcomes, and address questions from peers. Teacher will assess the presentations based on content accuracy, visual clarity, therapeutic reasoning, and presentation skills using a checklist. Peer feedback will be collected to promote collaborative reflection. A brief concluding discussion will summarize key learning points on integrating Siddha dietary wisdom with child health promotion.

Experiential-Learning 18.2 : *Siddha*-Based Substitute Feeding for Children Not Receiving Enough Breast Milk

Total Duration of the Activities: 4 Hours

This experiential learning session provides hands-on training for designing and demonstrating *Siddha*-based milk substitutes for infants and children not receiving adequate breast milk. Students will explore classical *Siddha* formulations and locally available ingredients such as goat milk, herbal decoctions *(e.g., elaneer kudineer)*, and nutrient-enriched porridges. The focus is on creating nutritious, digestible, and safe feeding alternatives, while also discussing their potential for entrepreneurial development in pediatric nutrition products. Students will prepare, present, and reflect on the practical, clinical, and market applications of these traditional feeds.

Instructions to Students (First 20 Minutes):Teacher will introduce the challenges of breastfeeding insufficiency and explain *Siddha* perspectives on alternative feeding. Students will be guided to explore safe substitutes such as goat milk with herbs, elaneer-based drinks, paal kudineer, and flour blends enriched with immunity-boosting herbs. Students will be grouped and instructed to plan a substitute feed using *Siddha* references, ensuring it meets nutritional and digestive needs of infants. Entrepreneurial considerations like shelf life, packaging, and community acceptance will also be introduced.

Students' Activities

Step – 01 (100 Minutes):Students will collaboratively formulate a *Siddha*-based milk substitute using classical knowledge and modern hygienic methods. Groups will prepare the feed (e.g., goat milk boiled with jeeragam and palm sugar, diluted porridge made from *saamai or kambu* with herbal support), document ingredients, quantities, and preparation steps. Teacher will supervise and ensure safety and correctness of techniques used. Each group will also outline basic packaging and use instructions for community settings.

Step – 02 (100 Minutes): Students will demonstrate their prepared formula to the class, explaining the nutritional benefits, *Siddha* rationale, and preparation process. Each group will also deliver a short proposal on how their product could be used as a community-based entrepreneurial model, addressing aspects such as scalability, affordability, and local resource availability. Teacher will facilitate discussion on real-world application, clinical acceptability, and alignment with public health goals.

Assessment (Final 20 Minutes): Teacher will assess each group based on practical demonstration quality, accuracy of formulation, presentation clarity, and entrepreneurial vision. A checklist will be used to evaluate nutritional completeness, *Siddha* alignment, and innovation. Peer feedback will support collaborative learning. Teacher will conclude with reflections on how Siddha pediatric nutrition can address community-level needs and promote indigenous healthcare entrepreneurship.

Experiential-Learning 18.3 : Laboratory Preparation of *Siddha* Herbal Beverages for Pediatric Health

Total Duration of the Activities: 3 Hours

In this lab-based experiential session, students will engage in hands-on preparation of traditional *Siddha* herbal beverages used to promote overall pediatric health, including immunity enhancement, fever management, appetite stimulation, and growth support. Using authentic formulations and traditional methods, students will learn to select, measure, and process ingredients correctly while adhering to safe lab and hygiene protocols. The activity blends practical skill development with an understanding of *Siddha* therapeutic applications in pediatric preventive care.

Instructions to Students (First 20 Minutes): Teacher will introduce a selection of *Siddha* herbal beverages known to support general pediatric health. Students will receive instructions on ingredient identification, accurate measurement, preparation timing, and tool safety. Emphasis will be placed on understanding the therapeutic purpose, age-appropriate dosing, and safe use of each preparation in routine pediatric care.

Students' Activities (Next 135 minutes)

Step – 01 (45 Minutes): Students will work in small groups to prepare one *Siddha* herbal beverage per group using step-by-step traditional methods. Focus will be on proportion control, temperature regulation, and maintaining cleanliness throughout the preparation process. Teacher will supervise and assist in maintaining safety and accuracy.

Step – 02 (45 Minutes): Students will document the complete preparation process, including ingredients, methods, and therapeutic indications. They will also research and record the health benefits of each beverage, such as improving resistance to infections, supporting recovery from illness, or enhancing appetite and vitality in children. Teacher will provide guidance on linking each ingredient to *Siddha principles.*

Step – 03 (45 Minutes): Students will discuss how these *Siddha* herbal beverages can be integrated into pediatric health routines, including their role in preventive care, recovery support, and daily wellness maintenance. Each group will present their findings, including the preparation process and potential applications, to the class. Teacher will lead a comparative discussion on clinical utility, household use, and community health promotion.

Assessment (Final 25 Minutes): Teacher will assess group performance using a checklist focusing on preparation accuracy, hygienic practices, understanding of health benefits, and clarity of presentation. Each group will submit a short lab report. Peer feedback will be collected to evaluate teamwork, presentation skills, and shared learning outcomes.

Experiential-Learning 18.4 : Balancing *Siddha* and Modern Nutritional Guidelines for Pediatric Health

Total Duration of the Activities: 4 Hours

This experiential learning activity provides students the opportunity to synthesize and visually present integrative pediatric dietary recommendations by aligning *Siddha* and modern nutritional principles. Students will choose a pediatric nutrition theme (e.g., immunity enhancement, anemia prevention, bone development etc.,), research guidelines from both systems, and collaboratively design educational posters. Emphasis will be on key nutrients, culturally relevant food sources, preparation methods, and integrative health benefits. Students will present their posters and engage in discussions to promote deeper understanding and practical application of a holistic nutrition approach.

Instructions to Students (First 20 Minutes):Teacher will introduce the goal of the session: to create an educational poster that merges *Siddha* dietary wisdom with modern

nutrition science for pediatric health. Students will choose or be assigned a pediatric nutrition topic. Teacher will explain how to research nutrient sources, therapeutic roles, and food preparation techniques from both systems. Guidelines for effective visual design and content clarity will be provided. Students must be prepared to present and justify their integrative approach during peer review.

Students' Activities

Step – 01 (70 Minutes):Students will collect information on their selected topic from *Siddha* classical texts and modern pediatric nutrition references. They will identify key nutrients, *Siddha* herbs or foods, conventional equivalents, and preparation methods. Students will sketch a layout for their poster that clearly illustrates integrative recommendations. Teacher will provide feedback on information synthesis and organization.

Step – 02 (70 Minutes): Students will design and complete their posters, combining text and visuals to communicate their topic effectively. The poster must highlight food items, nutrient benefits, daily or seasonal recommendations, and how the approach promotes child development and disease prevention. Teacher will monitor progress and ensure cultural relevance, scientific accuracy, and integrative clarity.

Step – 03 (60 Minutes): Students will present their posters to peers and faculty. Each presentation will include an explanation of the topic, key points from both *Siddha* and modern perspectives, and rationale for the integrative approach. Peers will provide feedback on content, clarity, and educational value. Teacher will guide a group discussion on the potential of integrative nutrition in clinical and community pediatric care.

Assessment (Final 30 Minutes): Teacher will assess the posters and presentations using a project rubric focused on accuracy, integrative value, visual clarity, and practical application. Peer feedback and engagement in discussion will also contribute to evaluation. Emphasis will be placed on the students' ability to synthesize traditional and modern knowledge for pediatric nutrition.

Experiential-Learning 18.5 : Scientific Debate on Pediatric *Siddha* Dietetics

Total Duration of the Activities: 4 Hours

This experiential session is structured as a scientific debate workshop that sharpens students' analytical thinking and communication skills while exploring critical *Siddha* pediatric dietary topics. Students will be divided into two opposing teams for each of three debate topics:

Dietary Intake Assessment in Children

Pathiyam and Dietary Restrictions in Pediatrics

Dietary Adjuncts in Pediatric *Siddha Medicine*

Each team will be given time to research, construct arguments, and present their views supported by *Siddha* texts, modern scientific literature, and clinical logic. The goal is to foster evidence-based dialogue, cross-perspective understanding, and application of *Siddha* dietary principles in real-world pediatric contexts.

Instructions to Students (First 20 Minutes):Teacher will divide students into two opposing teams for each debate topic and assign the themes. Each team will be briefed on debate etiquette, structure (opening statement, rebuttal, closing), and evaluation criteria. Students will be expected to use *Siddha* classical references and scientific reasoning to support their arguments.

Students' Activities

Step – 01 (100 Minutes): Students will work within their assigned teams to research their topic. Each team will gather evidence from *Siddha texts*, pediatric nutrition studies, and public health data to build their case. Teacher will circulate to support content validation, guide structure, and ensure balanced participation.

Step – 02 (100 Minutes): Each team will present their debate in front of the class. For each topic, one team will argue "for" and the other "against" the assigned proposition. Debates will include opening arguments, counterarguments, and concluding summaries. Teacher will moderate each round, ensuring fairness and time discipline. Peers will be encouraged to ask questions and engage critically during rebuttals.
Assessment (Final 20 Minutes):Teacher will assess performance using a debate rubric based on argument clarity, content accuracy, integration of *Siddha* and scientific perspectives, and team dynamics. Peer feedback will be collected to evaluate persuasiveness, respectfulness, and learning impact. Teacher will conclude the session by highlighting key insights and how these debates contribute to the evolving understanding of pediatric *Siddha* dietetics.

Experiential-Learning 18.6 : Preparation of Case Study Guidelines Report on Pediatric *Siddha* Nutrition Management

Total Duration of the Activities: 4 Hours
This session focuses on pediatric *Siddha* nutrition management through case-based learning. Students will be grouped and assigned themes such as malnutrition, digestive disorders, respiratory issues, or immunity boosting. Each group will construct a fictional case, create a diet-centered *Siddha* management plan, and document traditional food applications, feeding schedules, and measurable nutritional outcomes based solely on dietary strategies.
Instructions to Students (First 30 Minutes): Teacher will assign each group a topic and distribute a guideline template. Students will review dietary history, identify nutritional issues, and recommend suitable *Siddha*-based foods and feeding methods, including traditional preparations like *lehyam* and *thiratchi.* The teacher will explain documentation expectations, clarify age-wise food portions, and provide classical references to support therapeutic dietary planning in *Siddha* pediatrics.
Students' Activities
Step – 01 (90 Minutes): Students will work collaboratively to design a fictional pediatric nutrition case scenario. They will develop a *Siddha*-based dietary plan, selecting appropriate foods per *thodam,* defining preparation methods, and determining timing and frequency of feeding. Each group will integrate herbal food adjuncts and therapeutic porridge options. The teacher will supervise content development and offer support using classical nutrition references.
Step – 02 (90 Minutes):Students will compile their dietary findings into a structured nutrition guideline report. Each report will include key nutrient goals, suitable food items, traditional preparation methods, and pediatric meal planning. Groups will prepare visual aids such as charts to summarize their plans. The teacher will review content accuracy and provide feedback on clarity, clinical logic, and nutritional appropriateness.
Assessment (Final 30 Minutes): Groups will present their *Siddha* nutrition guidelines and visual plans. Teacher will assess based on accuracy, integration of *Siddha* dietary logic, age-appropriateness, and practical clarity. Peer feedback will focus on presentation impact and creativity. A brief viva will be conducted to evaluate individual understanding of therapeutic food planning and the application of *Siddha* dietetics in pediatric healthcare contexts.

Experiential-Learning 18.7 : *Siddha* and Scientific Dietary Documentation for Children with Special Needs

Total Duration of the Activities: 3 Hours
This experiential session equips students to develop scientific and *Siddha*-based dietary documentation for children with special needs, including those with motor developmental delays, sensory processing delays, learning disabilities, attention deficit disorders (ADHD), cognitive impairments, and neurodevelopmental disorders. Students will work in groups to build structured case-based dietary documentation that addresses nutritional requirements, functional dietary goals, and personalized plans

for improving cognition, physical development, attention span, and overall rehabilitation.
Instructions to Students (First 20 Minutes): Teacher will assign student groups a simulated case involving a child with specific developmental needs—such as autism spectrum disorder, cerebral palsy, Down syndrome, ADHD, sensory integration dysfunction, or specific learning disabilities. Students will receive guidance on documenting dietary needs aligned with *Siddha* food logic and modern nutrition science. They will include food categories, preparation instructions, nutrient goals, and target improvements (e.g., focus, memory, muscle tone, digestion, behavior).
Students' Activities
Step – 01 (70 Minutes): Students will analyze the given case and identify the child's developmental profile and symptoms. They will create a *Siddha*-scientific diet plan that incorporates traditional items for motor strength, for digestion/cleansing for immunity and cognition and appropriate *pathiyam.* Plans will detail preparation methods, portion sizes, and feeding schedules suitable for each condition.
Step – 02 (70 Minutes): Students will document their case as a comprehensive nutrition management report, including daily and weekly meal plans, cognitive and physical goal mapping, expected outcomes, and strategies to track developmental responses. Visual aids (flow charts or tables) will be prepared to show how dietary inputs relate to motor function, sensory integration, cognitive performance, and behavioral regulation.
Assessment (Final 20 Minutes):Groups will present their dietary documentation and visual tools. Teacher will evaluate the presentations using a checklist covering nutritional accuracy, integration of *Siddha* and scientific principles, alignment with the child's developmental needs, and clarity. Peer feedback will assess the educational value and clarity of content. A brief viva will be conducted to assess individual understanding of dietary personalization for special pediatric populations.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - This 25-mark assessment evaluates students' ability to visually present Siddha-based nutritional interventions for pediatric health. Students will create thematic charts or posters based on topics like malnutrition prevention, Siddha immunity support, dietary protocols, classical concepts, and case studies. Assessment emphasizes creativity, accuracy, *Siddha* integration, and pediatric applicability. Instructions to Students : Students are required to develop educational charts or posters based on the given syllabus topics. Select one subtopic and illustrate key Siddha concepts, nutritional strategies, classical references, and their pediatric applications. Ensure visual clarity, scientific accuracy, and concise labeling. Display your work during class presentation. No digital tools are permitted. Instructions to Teachers : Evaluate each student's chart/poster for content relevance, visual quality, clarity of *Siddha principles*, and pediatric applicability. Encourage use of classical *Siddha* terms and contextual illustrations. Observe students' ability to explain their charts during display. Use standardized rubrics focusing on conceptual integration, creativity, and clarity of health education messaging. Mark Distribution : Marks are distributed as follows: Poster or chart content accuracy and integration of Siddha principles carry 8 marks. Visual creativity, clarity, and overall organization account for 6 marks. Pediatric relevance and real-life applicability are evaluated for 5 marks. Presentation and verbal	4

explanation hold 4 marks, and classical *Siddha* dietary references contribute 2 marks, totaling 25 marks.
&
Section – B. This 25-mark modular assessment evaluates students' analytical, theoretical, and communicative understanding of Siddha-based nutritional management in pediatrics. Students will complete a theory-based open book test on malnutrition prevention and dietary formulations, followed by a class presentation focused on case-based dietary application, classical Siddha dietary texts, and practical pediatric relevance.
Instructions to Students : Prepare answers using your notes and textbooks for the open book section from given topic focused on malnutrition, nutritional deficiencies, and dietary formulations. Then, present a structured case-based Siddha dietary plan highlighting classical food principles. Students presentation should reflect both theoretical depth and clarity in application to pediatric nutritional challenges.
Instructions to Teachers : Frame open book test questions targeting content application, classical Siddha dietary integration, and malnutrition correction strategies. For the class presentation, guide students to select relevant subtopics or case studies from Module 18. Evaluate based on clarity, content relevance, textual citations, and integration of *Siddha* dietary principles in pediatric contexts.
Mark Distribution : Marks are distributed across two key formats. The Theory Open Book Test carries 10 marks, assessing understanding of Siddha principles and malnutrition strategies. Presentation Content is valued at 7 marks, followed by 5 marks for effective application in pediatric scenarios. Communication clarity and engagement during presentation holds 3 marks. Total – 25 Marks
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).

Semester No : 4

Module 19 : ???????????? ???? ??????? ???? ????????? ????? ????????????? ??????????? - Kuzhanthaigalin Samooga Matrum Noi Thaduppil Siddha Maruthuvathin Adippadaigal (Foundations Community and Preventive Pediatrics in Siddha)

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

Describe Siddha preventive concepts in pediatric disease management.
Identify Siddha immunity-boosting remedies for child health.
Apply Siddha guidelines for pediatric nutrition and seasonal care.
Assess growth and immunity using Siddha diagnostic techniques.
Integrate Siddha with public health and immunization programs.
Evaluate Siddha medicinal plants for pediatric disease prevention.

M 19 Unit 1 ???????????? ???? ??????? ???????????? ????? ?????????? - Kuzhanthaikalin Noi Thaduppu Kotpaattil Siddha Maruthuvam - Principles of Preventive Pediatrics in Siddha

19.1.1 Basics of Preventive Care in Siddha – Holistic wellness foundation, *mukkutram* balance, early-life disease prevention, traditional health maintenance, pediatric preventive strategies.
19.1.2 Siddha Concepts of Immunity and Well-being – *Mukkutram* regulation, immune system vitality, health preservation, disease resistance principles, Siddha immune philosophy.
19.1.3 Preventive Care for Newborns and Children – Newborn regimen, *Vasambu and Uraimathirai* usage, hygiene practices, seasonal adaptation, early immune fortification.
19.1.4 Siddha Therapies for Pediatric Care – External preventive applications, internal herbal formulations, common disease prophylaxis, traditional therapy integration.
19.1.5 Role of Vaccination and Siddha's Immunity Approaches – Vaccination support, immune-enhancing herbs, integrative immunity strengthening, Siddha-scientific mediicne synergy.

References: 102,107

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4	Describe the principles of preventive care in Siddha, focusing on holistic well-being, immunity, and the prevention of childhood diseases.	1	Lecture	CAN	Knows-how	L&GD,L
CO1,CO3,CO4	Analyze Siddha immune-boosting methods for children using herbs, hygiene, and vaccination-supportive practices.	1	Lecture	CAN	Know	LS,L&GD,PrBL
CO1,CO4,CO8	Practice guided *Siddha* newborn and child care techniques with skill and precision.	2	Practical Training 19.1	PSY-GUD	Shows-how	DIS,W,PAL,D
CO1,CO3,CO4	Evaluate *Siddha* immune-enhancing herbs and therapies with scientific rationale.	2	Practical Training 19.2	PSY-GUD	Shows-how	BL,TBL,DIS,PAL

CO1,CO4,CO8	Demonstrate value of *Siddha* immunity practices through pediatric case applications	3	Experiential-Learning 19.1	AFT-VAL	Does	PL,TBL,CBL,SIM
CO1,CO4,CO8	Demonstrate Siddha preventive therapies and simulate pediatric immunity counseling	4	Experiential-Learning 19.2	PSY-MEC	Does	RP,SIM,D

M 19 Unit 2 ???? ????????????? ????? ???????? ???????????? – Samooga Arokkiyathil Siddha Maruthuva Karuthurukkal - Siddha Concepts of Community Health

19.2.1 Siddha and Public Health Concepts – Environmental influence, dietary regulation, lifestyle practices, community disease prevention, Siddha public health integration.
19.2.2 Role of Siddha in Preventing Childhood Diseases – Respiratory infection control, digestive disorder prevention, skin care strategies, community-level Siddha interventions.
19.2.3 Siddha Health Camps for Communities – Rural outreach services, pediatric screening, preventive herb-based care, *Siddha* diagnostic and treatment exposure.
19.2.4 Lifestyle and Community Health in Siddha – Daily regimen promotion, community dietary planning, behavioral practices, traditional health sustainability approaches.
19.2.5 Siddha and Seasonal Disease Prevention – Fever and cold management, seasonal food adaptation, herbal prophylaxis, *Kayakarpam*-based seasonal immunity support.

References: 41,43,58,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4	Discuss Siddha public health concepts emphasizing environment, diet, and lifestyle in pediatric disease prevention.	1	Lecture	CAP	Know	L&GD
CO1,CO2,CO3,CO4	Analyze Siddha's preventive role in childhood diseases through diet, lifestyle, and herbal remedies.	1	Lecture	CAN	Knows-how	L&GD,DIS,PER
CO3,CO4	Discuss Siddha camps and seasonal practices for enhancing child and community health.	1	Lecture	CC	Knows-how	DIS,L&GD

CO4,CO6,CO8	Design *Siddha* public health plans for pediatric disease prevention	4	Experiential-Learning 19.3	CS	Does	RP,TBL,D,FV
CO1,CO4,CO7	Apply *Siddha* preventive strategies for pediatric seasonal illnesses	3	Experiential-Learning 19.4	CAP	Does	D,RP,CBL,TBL
CO1,CO4,CO8	Develop preventive pediatric care ideas from *Siddha* perspectives.	3	Practical Training 19.3	CC	Shows-how	PER,DIS,SY,PL
CO1,CO4,CO8	Design and simulate a *Siddha* pediatric outreach health camp.	3	Practical Training 19.4	PSY-ADT	Shows-how	D,FV,SIM,TBL

M 19 Unit 3 ???????????? ??????????? ??????? ???????? ????????????? ????? ?????????? - Kuzhanthaikalin Oottasaththtu matrum Valarchi Kankaanippil Siddha Maruthuvam - Pediatric Nutrition and Growth Monitoring in Siddha

19.3.1 Siddha Guidelines for Pediatric Nutrition – Child-specific dietary planning, functional food integration, herbal supplementation, growth-promoting nutrition, Siddha dietary foundations.
19.3.2 Growth Monitoring Tools and Techniques – Pulse examination, tongue and eye diagnosis, developmental delay detection, traditional Siddha assessment tools.
19.3.3 Nutritional Assessments for Pediatrics – Digestion analysis, nutrient assimilation review, elimination pattern observation, Siddha growth assessment framework.
19.3.4 Dietary Guidelines for Different Pediatric Age Groups – Infant to school-age planning, age-appropriate food selection, mukutram balance, developmental nutrition customization.
19.3.5 Preventive Nutrition Strategies – Deficiency prevention, herbal dietary correction, Siddha health maintenance, specialized nutritional planning, disease aversion.

References: 27,68,98

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4	Describe Siddha nutrition, functional foods, and herbs supporting pediatric growth and development.	1	Lecture	CAN	Knows-how	ML,L&GD,L

CO1,CO4,CO6	Perform *Siddha* diagnostics to assess pediatric nutritional status	4	Experiential-Learning 19.5	PSY-MEC	Does	SIM,PAL,D,CBL
CO1,CO3,CO4	Design *Siddha* diet plans for balancing *Mukutram* in children	4	Experiential-Learning 19.6	CAP	Does	CBL,PL,PrBL,W,D
CO1,CO3,CO4	Describe Siddha diagnostic methods for early detection of malnutrition and developmental delays.	1	Lecture	CC	Knows-how	DIS,CBL
CO1,CO3,CO4	Discuss Siddha nutrition plans and remedies to prevent pediatric deficiencies and diseases.	1	Lecture	CC	Knows-how	L&GD,PAL,DIS
CO1,CO4,CO7	Apply *Siddha* dietary strategies for pediatric preventive nutrition.	3	Practical Training 19.5	CAP	Shows-how	L&PPT , CBL,SY, PAL
CO1,CO3,CO4	Perform *Siddha* diagnostic evaluation of pediatric growth status.	2	Practical Training 19.6	PSY-GUD	Shows-how	PAL,D,RLE

M 19 Unit 4 ???? ????????? ??????? ???? ???????????? ????? ???????? ???????????? – Noi Ethirpaatral matrum Noi Thaduppukkanana Siddha Maruthuva Anugumuraigal - Siddha Approaches to Immunization and Disease Prevention

19.4.1 Siddha Integration in National Immunization Programs – Siddha vaccine support strategies, Siddha- modern medicine synergy, immunity-enhancing interventions, national program alignment.
19.4.2 Siddha Medicines and Immunity Enhancement – *Kayakarpam* application, special herbal formulations, immune response stimulation, post-vaccination side effect prevention, complementary therapies.
19.4.3 Preparation of Immunity-Boosting Siddha Medicines – *Sei Ennai, Sei Neer variants, Urai Mathirai, Yetthankai Podi* preparation, traditional pediatric immunity support.
19.4.4 Prevention and Management of Communicable Diseases – Hygiene maintenance, dietary protection, herbal internal medicines, external therapies, infectious disease control.
19.4.5 Medicinal Plants for Pediatric Immunization – *Vasambu, Sukku, Thippli, Milagu, Poondu* etc., Siddha pediatric immune modulation.

References: 47,89,90,95,102,107,125

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4	Integrate *Siddha* immunity support with national immunization efforts	4	Experiential-Learning 19.7	CAP	Does	SIM,PL,RLE,D,DL
CO1,CO3,CO4 ,CO5	Describe Siddha remedies' role in boosting immunity and supporting national immunization programs.	1	Lecture	CAN	Knows-how	L&GD,DIS
CO1,CO3,CO4	Discuss Siddha herbs and formulations for pediatric immunity and communicable disease prevention.	1	Lecture	CC	Knows-how	L&GD,DSN
CO1,CO3,CO5	Prepare pediatric *Siddha* immunity drugs using correct techniques.	3	Practical Training 19.7	PSY-MEC	Shows-how	W,PAL,D
CO1,CO3,CO5	Compile and present Siddha and modern data on pediatric immuno-herbs.	2	Practical Training 19.8	CS	Shows-how	PrBL,PL,LS

Practical Training Activity

Practical Training 19.1 : *Siddha*-Based Preventive Care Protocols for Newborns and Infants

Total Duration of the Activities: 2 Hours

This session equips students with traditional preventive pediatric *Siddha* care strategies, focusing on neonatal hygiene, immune-boosting practices, and seasonal regimen. Students will learn about *Vasambu* use, *Uraimathirai* application, oil massages *(Thokkanam)*, and newborn bathing techniques, followed by simulated caregiver education on *Siddha* infant wellness routines.

Instructions to Students (First 20 Minutes): Teacher will demonstrate *Siddha*-based newborn care, including herbal fume exposure *(Vasambu)*, paste application *(Uraimathirai)*, oil massage *(Thokkanam)*, and infant bathing sequences. Students will observe safety principles, sequence of actions, and preparation of *Siddha* immune powders. Questions are encouraged before beginning the hands-on replication.

Students' Activities (Next 80 Minutes):

Step – 01 (First 40 Minutes): Students will practice newborn care on models—handling, oil application, *Vasambu fumigation*, and *Uraimathirai* paste simulation. They will prepare basic *Siddha* immune powders suitable for infants and toddlers, focusing on safety, hygiene, and application protocols.

Step – 02 (Next 40 Minutes): Students will role-play caregiver education, teaching seasonal regimen, dietary hygiene, and *Siddha* preventive rituals. They will use simplified

language and demonstrate how traditional practices contribute to pediatric immunity and early development.
Assessment Methods (Final 20 Minutes): Teacher will evaluate students using a performance checklist for technique accuracy, gentleness, and communication clarity. Peer assessments will focus on educational effectiveness and cultural appropriateness in simulated caregiver interactions. Feedback will reinforce both clinical skill and community education roles.

Practical Training 19.2 : Debate and Critical Appraisal of *Siddha* Immunity and Vaccination Integration

Total Duration of the Activities: 2 Hours
This session emphasizes analytical thinking through a structured debate on *Siddha* immunity principles, *Mukkutram* balance, and their comparison with allopathic vaccination strategies. Students will evaluate scientific literature on immunomodulatory *Siddha* herbs and engage in a team-based discussion identifying integration possibilities and limitations. The exercise fosters critical reasoning, communication, and evidence-based analysis.
Instructions to Students (First 20 Minutes): Students will be divided into 2–3 teams. Each team will conduct a brief review of classical and scientific evidence related to *Siddha* herbs that enhance immunity. One team will argue for *Siddha* integration with vaccination, another will critique limitations, and a third (if present) will propose hybrid models. Prepare arguments using texts, trials, or pharmacological studies.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Each team will present their stance on *Siddha* immunity and vaccination. Presentations must include references from *Siddha* literature, scientific studies, safety profiles, and pharmacological insights. Emphasis should be on mechanisms of action and practical integration models.
Step – 02 (Next 40 Minutes): Students will engage in moderated debate, rebuttals, and cross-questioning. Teams will analyze each other's positions, defend their arguments, and explore combined strategies like post-vaccination *Siddha* support, immunonutrition, and herbal adaptogens.
Assessment Methods (Final 20 Minutes): Students will be evaluated on debate performance, clarity, evidence use, and critical responsiveness. Teacher will use a structured rubric, and peer feedback will be gathered. Additionally, students will submit a critical reading paper analyzing one *Siddha* herb or formulation's immunological effect.

Practical Training 19.3 : Mini-Symposium on *Siddha* Preventive Pediatric Practices

Total Duration of the Activities: 3 Hours
This session involves a student-led mini-symposium on *Siddha*-based pediatric preventive care. Topics include *Naaladi Gnanam* (daily regimens), *Kaalachaaram* (seasonal care), *Kaappu Maruthuvam* (prophylaxis), and *Ozhukkam* (conduct). Students will work in groups to present the clinical importance, scriptural basis, and contemporary relevance of each topic, integrating classical *Siddha* references and real-life pediatric contexts.
Instructions to Students (First 30 Minutes): Students will be divided into 3–4 groups. Each team will choose a topic under *Siddha* preventive pediatric practices and prepare a 10-minute presentation. They are encouraged to include classical quotes, case examples, and practical applications. Supporting materials like posters, herb samples, and handouts may be used to enhance clarity and engagement.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Each team will present their selected topic, such as seasonal care protocols, immunity-building herbs, or neonatal preventive practices like

Vasambu and Uraimathirai. Focus will be on relevance to current pediatric needs and alignment with *Siddha texts*.
Step – 02 (Next 60 Minutes): Groups will engage in interactive discussions and cross-questioning. A reflective activity will follow, where students collaboratively create take-home charts or posters on daily and seasonal pediatric preventive strategies derived from *Siddha care.*
Assessment Methods (Final 30 Minutes): Teacher will use structured rubrics to assess presentation content, clarity, and application. Peer evaluations will capture teamwork and communication effectiveness. Each student will complete a self-assessment and submit a reflective note on the clinical applicability of *Siddha* preventive strategies in pediatric care settings.

Practical Training 19.4 : Simulation of *Siddha* Pediatric Health Camp

Total Duration of the Activities: 3 Hours
This session simulates organizing a *Siddha* pediatric health camp. Students will create mock outreach environments reflecting real-life field settings. They will set up diagnostic, therapeutic, and preventive camp stations, use *Siddha* tools like *Naadi and Neikkuri,* and educate caregivers on lifestyle measures including *unavu muraigal, Paatiyam, and Kaappu Maruthuvam.* Teams will role-play health professionals delivering *Siddha* pediatric services.
Instructions to Students (First 30 Minutes): Students will be grouped into teams representing different camp stations—registration, diagnosis, education, and herbal remedy distribution. Each team will be instructed on the simulation flow, proper use of traditional *Siddha* diagnostic methods, and how to guide parents on preventive pediatric measures rooted in classical *Siddha* wisdom.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will conduct simulated pediatric *Siddha* evaluations using *Naadi* and *Neikkuri* on models, record history, explain personalized diet and lifestyle guidelines, and demonstrate preventive techniques like herbal fumigation and oil application based on *thodam* imbalances.
Step – 02 (Next 60 Minutes): Students will engage in reflective group discussions comparing rural and urban pediatric health concerns. They will present feasible *Siddha* outreach models, propose awareness strategies, and assess how cultural adaptation influences pediatric *Siddha* healthcare delivery in the field.
Assessment Methods (Final 30 Minutes): Teachers will assess each team using observation checklists focusing on diagnostic technique, communication, cultural sensitivity, and preventive education clarity. Peer assessments and self-reflections will evaluate team participation, realism of camp simulation, and individual insight into improving *Siddha* pediatric outreach.

Practical Training 19.5 : Symposium on *Siddha* Pediatric Nutrition and Preventive Strategies

Total Duration of the Activities: 3 Hours
This symposium-based session engages students in presenting *Siddha* pediatric nutrition themes through short talks, visual demonstrations, and discussions. Topics cover *Paatiyam, mukkutram*-based diet planning, herbal tonics, seasonal adjustments, and prevention of pediatric nutritional disorders. Students translate *Siddha* nutritional wisdom into age-specific, functional food-based interventions for child health.
Instructions to Students (First 30 Minutes): Students will form small groups and select a specific theme like functional foods *(e.g., Karuppatti, Inji),* herbal tonics, or *mukkutram*-adjusted diets for different age groups. They will prepare a 10-minute presentation using visual aids such as posters, dietary models, and sample recipes. Peer

discussion roles and case interpretation tasks will be distributed.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Each group will deliver their presentation, incorporating *Siddha* nutrition principles and demonstrating practical applications like herbal supplementation, age-specific food routines, or cooking methods aligned with doshic balance. Charts and dietary models will be displayed and explained.
Step – 02 (Next 60 Minutes): Groups will engage in peer-led discussions, Q&A, and feedback. Case studies like frequent cold or digestive complaints will be explored using *Siddha* nutrition as a preventive model. Comparative discussions on *Siddha* vs. modern nutritional frameworks will follow.
Assessment Methods (Final 30 Minutes): Teacher will evaluate each student's participation and presentation using a structured checklist. Peer feedback will assess content clarity, creativity, and integration of *Siddha* concepts. Bonus points may be given for herbal recipe demonstrations, innovative charts, or comparative insights with modern pediatrics.

Practical Training 19.6 : *Siddha* Diagnostic Tools for Pediatric Growth and Malnutrition Monitoring

Total Duration of the Activities: 2 Hours
This session trains students in traditional Siddha diagnostic tools—*Naadi* (pulse), *Naa* (tongue), *Kan* (eyes), *Mozhi* (voice), and *Sparisam* (touch)—to monitor pediatric growth and identify malnutrition or developmental delays. Students will correlate these findings with modern anthropometric measures like height, weight, and MUAC. They will document diagnostic results and engage in reflective group discussions under teacher supervision.
Instructions to Students (First 20 Minutes):Teacher will demonstrate *Siddha* indicators for pediatric growth monitoring, including pulse quality, tongue appearance, skin features, eye brightness, and speech tone. Students will be shown how to relate these with physical parameters like weight-for-age and height-for-age. Clarifications will be provided before beginning individual tasks.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes):Students will perform *Siddha* diagnostic evaluation on pediatric models or cases, noting signs through *Naadi, Naa, Kan, Mozhi, and Sparisam.* They will document findings and cross-check with anthropometric parameters such as weight and MUAC to identify deviations from normal growth.
Step – 02 (Next 40 Minutes): Students will form small groups to interpret results, identify signs of malnutrition or developmental delays, and propose *Siddha* management strategies including specific dietary changes, herbal karpam recommendations, and caregiver education based on their assessments.
Assessment Methods (Final 20 Minutes):Teacher will assess student performance using structured checklists focusing on accuracy of observation, diagnostic reasoning, and linkage to growth data. A practical viva will reinforce learning outcomes, and peer feedback will help refine interpretive and communication skills.

Practical Training 19.7 : Formulation and Use of *Siddha* Immunity-Boosting Medicines in Pediatrics

Total Duration of the Activities: 3 Hours
This practical session provides hands-on training in the formulation and pediatric application of a selected *Siddha* immunity-enhancing medicine, such as *Urai Mathirai or Sei Ennai.* Students will learn to identify ingredients, measure accurately, apply preparation techniques, and document usage as per *Siddha* pharmacopoeial standards. The relevance of these formulations in pediatric care, particularly during postnatal periods and immunization, is emphasized.

Instructions to Students (First 30 Minutes):
Teacher will explain the goals of the practical, highlighting key ingredients, preparation steps, and safety protocols for the chosen immunity medicine. Students will observe a demonstration of the formulation process and will be briefed on quality parameters, hygiene, and pediatric indications before starting hands-on preparation.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes):Students will work in small groups to prepare the assigned *Siddha formulation*, such as *Sei Nei or Urai Mathirai.* Under supervision, they will weigh herbal ingredients, mix them with appropriate mediums, and observe key changes like color, texture, and aroma that indicate readiness of the product.
Step – 02 (Next 60 Minutes): Groups will label their products and complete storage documentation. They will also create a pediatric usage chart explaining dosage, timing, mode of administration, and the formulation's role in boosting immunity during common childhood illnesses and post-vaccination care.
Assessment Methods (Final 30 Minutes): Teacher will assess technical accuracy, hygiene practices, dosage correctness, and linkage to pediatric care using a checklist. A short viva will test understanding of pharmacological rationale, and peer feedback will evaluate clarity, teamwork, and communication.

Practical Training 19.8 : Documentation of *Siddha* Immuno-Enhancing Medicinal Plants for Pediatric Use

Total Duration of the Activities: 2 Hours
This practical involves group-based documentation and visual compilation of immunity-boosting *Siddha* medicinal plants relevant to pediatric care. Students will collect and organize ethnobotanical, classical *Siddha*, and scientific information on selected herbs such as *Vasambu, Sukku, Thippli, Milagu,* and others. The project will integrate herb photographs, botanical descriptions, *Siddha* uses, formulation methods, and immunization-related applications.
Instructions to Students (First 20 Minutes): Teacher will assign each group 2–3 medicinal plants and explain expectations for documentation. Students will gather content using classical *Siddha texts*, scientific databases, herbarium sources, and field data. They must include images, therapeutic properties, *Siddha formulations*, and pediatric relevance aligned with immunization.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will compile textual data on *Siddha* classification, botanical features, therapeutic actions, dosage, and pediatric indications. They will focus on integrating traditional knowledge with scientific studies on immunity.
Step – 02 (Next 40 Minutes): Each group will organize their findings into a 25-page illustrated report with clear structure, herb photographs, and brief presentations. Ethnomedical narratives and visual documentation will support their compilation for pediatric *Siddha* immunization care.
Assessment Methods (Final 20 Minutes):Teacher will assess completeness, accuracy, and creativity of each group's documentation. Photo clarity, integration of modern and classical sources, and group presentation quality will be evaluated. Peer review will contribute to collaborative reflection and learning outcomes.

Experiential learning Activity

Experiential-Learning 19.1 : *Siddha* Preventive Strategies and Immunity Counseling in Pediatrics

Total Duration of the Activities: 3 Hours
This session focuses on *Siddha*-based preventive health strategies for children using the concept of *Mukkuram* balance to enhance immunity. Students will explore pediatric

case scenarios and identify preventive interventions involving *Siddha* diet, herbal preparations, and daily lifestyle routines. Emphasis will be placed on recognizing constitutional imbalances, tailoring interventions, and practicing communication skills to counsel caregivers.
Instructions to Students (First 20 Minutes): Teacher will introduce the concept of *Mukkuram* and its preventive role in childhood health. Students will review basic *Siddha principles* on immunity, classical dietary suggestions, and lifestyle routines. They will learn how to assess *Vadham, Pitham, and Kabam* variations and propose preventive measures. Students will then be oriented to the assigned pediatric cases and counseling expectations.
Students' Activities
Step – 01 (70 Minutes): Students will work in small groups to evaluate their assigned pediatric case scenarios, identify signs of *Mukkuram* imbalance, and propose *Siddha*-based preventive strategies. These include herbal decoctions, immunity-boosting foods, lifestyle routines, and seasonal dietary modifications. Groups will present their findings and discuss how these measures contribute to overall child wellness and disease prevention.
Step – 02 (70 Minutes): Students will role-play caregiver counseling sessions, demonstrating how to explain *Siddha* immunity concepts and preventive strategies in simple language. They will simulate real-life interactions, answering caregiver questions and giving dietary advice. Each student will document a reflection on their experience, including communication challenges, cultural sensitivity, and the practical relevance of *Siddha* preventive care.
Assessment (Final 20 Minutes): Teacher will assess each group's case presentation and caregiver counseling using a structured checklist. Key areas include conceptual accuracy, practical applicability of the proposed *Siddha* interventions, clarity in communication, and confidence during the simulation. Peer feedback will highlight team collaboration, while a short viva will test individual understanding of *Siddha* preventive health logic in pediatrics.

Experiential-Learning 19.2 : Siddha Preventive Therapies and Integrative Immunity Support in Pediatrics

Total Duration of the Activities: 4 Hours
This experiential session focuses on practical training in Siddha-based preventive pediatric care. Students will learn to prepare and apply external immunity-enhancing therapies like oil massage and fumigation using herbs such as Vasambu and Uraimathirai. They will integrate this knowledge with modern immunization schedules and simulate caregiver counseling to promote holistic child health through a blend of traditional and modern practices.
Instructions to Students (First 30 Minutes): Teacher will introduce the importance of Siddha preventive measures in pediatric care and demonstrate procedures such as herbal fumigation and oil massage. Students will review Siddha immunity-enhancing preparations and receive guidance on how to communicate effectively with caregivers about combining these practices with vaccination protocols.
Students' Activities (Next 180 mins)
Step – 01 (60 Minutes): Students will participate in the preparation and application of Siddha preventive therapies under supervision. This includes identifying key herbs, performing external applications, and maintaining hygiene standards. Emphasis will be placed on understanding therapeutic purpose, procedural safety, and suitability for different pediatric stages and seasonal conditions.
Step – 02 (60 Minutes): In small groups, students will analyze case scenarios where Siddha therapies support vaccination outcomes. They will draft personalized immunity care plans for children, incorporating diet, herbs, and external therapies. Each group will justify the timing and selection of practices based on Siddha seasonal guidelines and vaccine schedules.
Step – 03: (60 Minutes): Students will role-play caregiver counseling sessions. Each student will simulate educating caregivers on how Siddha practices like pathiyam,

herbal preparations, and seasonal regimens can support vaccine-induced immunity. Emphasis will be on empathetic interaction, cultural sensitivity, and reinforcing integrative pediatric care messages.
Assessment (Final 30 Minutes): Teacher will assess each student's procedural performance and role-play interaction using DOPS and a counseling checklist. Peer feedback will evaluate clarity of communication and relevance of care plans. A short viva will test understanding of the integrative role of Siddha therapies in pediatric immunity and preventive care alignment with modern practices.

Experiential-Learning 19.3 : *Siddha* Health Camp Simulation for Pediatric Public Health

Total Duration of the Activities: 4 Hours
This experiential learning session involves a field-based simulation where students plan and simulate a *Siddha* health camp focusing on pediatric public health. Emphasizing community engagement, the activity covers preventive care for childhood respiratory, digestive, and skin disorders. Students will design health education modules, demonstrate herbal and external therapies, and develop actionable plans to promote pediatric well-being through *Siddha principles.*
Instructions to Students (First 20 Minutes):Teacher will explain *Siddha*-based public health concepts and common pediatric conditions addressed in rural *Siddha* outreach. Students will review hygiene, diet, seasonal regimens, and camp logistics. Groups will be formed and assigned tasks to simulate a pediatric *Siddha* health promotion camp.
Students' Activities
Step – 01 (70 Minutes):Students will design a *Siddha* pediatric health camp layout, including flow of services such as diet counseling, hygiene education, herbal remedy stations, and lifestyle guidance. They will detail tools required, engagement strategies, and *Siddha* interventions.
Step – 02 (70 Minutes): Students will simulate community education activities through mock demonstrations, posters, and skits aimed at educating caregivers about pediatric *Siddha* prevention strategies. They will deliver brief talks on diet, seasonal regimens, and herbal remedies in a public health setting.
Step – 03 (60 Minutes): Students will consolidate their experience into a practical health camp implementation plan. This will include step-wise procedures, key *Siddha* formulations, camp layout designs, stakeholder roles, and long-term follow-up strategies for community-level pediatric health promotion.
Assessment (Final 20 Minutes): Teacher will assess students' health camp design and community education simulation using a structured checklist. Peer feedback will be collected on clarity, creativity, and teamwork. A short viva will assess understanding of *Siddha* public health relevance and practical implementation in pediatric care.

Experiential-Learning 19.4 : Seasonal Preventive *Siddha* Care for Pediatric Health

Total Duration of the Activities: 3 Hours
This session simulates preventive care strategies from Siddha medicine during seasonal transitions in pediatric populations. Students will examine how herbal formulations, *Kayakarpam* practices, and *Siddha* dietary adaptations prevent common seasonal illnesses such as cold, cough, and fever in children. They will prepare customized seasonal health plans and practice caregiver counseling through role play.
Instructions to Students (First 20 Minutes): Teacher will explain the *Siddha* framework for seasonal disease prevention, including seasonal dietary recommendations, immunity-boosting *Kayakarpam* techniques, and herbal remedies. Students will observe demonstrations and receive guidelines to develop a seasonal care plan and parent education material.

Students' Activities
Step – 01 (70 Minutes):Students will formulate a seasonal care plan using *Siddha* dietary principles and immune-supportive herbs tailored to pediatric age groups. They will also integrate suitable *Kayakarpam* practices, focusing on practical application and timing relevant to seasonal transitions.
Step – 02 (70 Minutes): Each group will present their seasonal preventive care plan using posters or visual charts. They will simulate caregiver counseling through role play, explaining the importance of dietary practices, *Kayakarpam,* and home-based herbal remedies to maintain child health during seasonal shifts.
Assessment (Final 20 Minutes): Teacher will assess student presentations for accuracy, *Siddha* alignment, and clarity in communication. Peer feedback will evaluate the effectiveness of the role-play. A short viva will test individual understanding of seasonal disease prevention using *Siddha principles* and their ability to convey preventive advice effectively.

Experiential-Learning 19.5 : *Siddha* Diagnostic Skills and Nutritional Assessment in Pediatrics

Total Duration of the Activities: 4 Hours
This session focuses on developing students' clinical diagnostic skills using *Siddha principles* to evaluate pediatric growth, nutrition, and development. Students will practice *Naadi Paritchai,* tongue and eye observation, and digestion-based assessments through simulated pediatric cases. They will then apply findings to create an individualized *Siddha*-based nutritional support and growth enhancement plan tailored to developmental delays or malnutrition.
Instructions to Students (First 20 Minutes): Teacher will demonstrate pulse reading (*Naadi*), tongue, eye, and skin evaluation specific to pediatric growth indicators. Students will also learn to assess digestion and waste elimination in *Siddha.* They must observe, record key findings, and prepare to apply them to case-based scenarios.
Students' Activities
Step – 01 (70 Minutes): Students will work in pairs or triads to practice *Siddha* diagnostic methods on simulated or role-play pediatric cases. They will use *Naadi,* tongue color, eye luster, and skin tone to assess growth and identify potential malnutrition or developmental imbalances.
Step – 02 (70 Minutes):Students will evaluate pediatric nutritional status using *Siddha* digestion parameters like appetite, bowel pattern, and food assimilation. They will integrate *Siddha* observations with conventional growth charts to assess nutritional deficits and record diagnostic impressions for discussion.
Step – 03 (60 Minutes): Students will collaboratively design a complete nutrition and growth enhancement plan for the diagnosed pediatric case. This includes tailored food regimens, herbal supports, and digestion-strengthening strategies from classical *Siddha texts.* Each group will present their findings and therapeutic approach to the class.
Assessment (Final 20 Minutes): Teacher will assess student diagnostic skills and presentation quality using structured checklists. Clinical accuracy, integration of *Siddha concepts*, and appropriateness of the nutrition plan will be evaluated. A short viva will test individual understanding of diagnostic logic and clinical relevance.

Experiential-Learning 19.6 : *Siddha*-Based Dietary Planning for Pediatric Age Groups

Total Duration of the Activities: 4 Hours
This experiential session focuses on *Siddha* dietary applications tailored for pediatric age groups. Students will develop comprehensive, age-specific meal plans aimed at balancing *Mukutram (Vali, Azhal, Iyyam)* and preventing nutritional deficiencies. They will also explore functional foods, *Kayakarpam principles*, and seasonal herbal strategies that support immunity, digestion, and physical development. Through demonstrations and practical planning, students will gain hands-on understanding of *Siddha*

nutritional logic in pediatrics.
Instructions to Students (First 20 Minutes):Teacher will explain the age-wise *Siddha* dietary guidelines for infants, toddlers, and school-aged children, with focus on *Mukutram* balance. Students will observe a demonstration on preparing selected nutrient-rich foods and understand how specific herbs and foods prevent deficiencies. They will then be briefed on their tasks involving diet planning and preventive strategies.
Students' Activities
Step – 01 (70 Minutes):Students will work in assigned groups to create a balanced, age-appropriate dietary plan based on *Siddha* nutrition principles. Each plan will include daily food items, appropriate timings, seasonal variations, and justification for *Mukutram* balance through food properties and preparation methods.
Step – 02 (70 Minutes): Students will design a preventive nutrition strategy to address common pediatric health concerns using *Siddha* remedies such as lehyam, chooranam, and *Kayakarpam* formulations. The strategy will also include recommendations for seasonal regimens and supportive herbs suitable for each age group.
Step – 03 (60 Minutes): Each group will present their full nutrition and prevention plan to the class, explaining the rationale behind food choices, targeted benefits, and integration of *Siddha principles.* The presentation will be followed by peer feedback and a discussion moderated by the teacher to deepen critical analysis and clinical relevance.
Assessment (Final 20 Minutes): Teacher will evaluate each group's plan using a structured checklist focusing on age-specific accuracy, *Mukutram balance*, nutritional sufficiency, and cultural feasibility. Peer reviews and a short viva will assess the student's ability to justify their choices and integrate *Siddha* dietary logic into pediatric nutrition planning.

Experiential-Learning 19.7 : *Siddha* Integration with National Immunization Programs

Total Duration of the Activities: 4 Hours
This workshop aims to integrate *Siddha principles* with the National Immunization Program (NIP) for pediatric care. Students will observe the preparation of Siddha immunity-enhancing medicines, practice identifying key medicinal plants, and learn how these approaches complement conventional vaccines. The session concludes with group simulation of an immunization camp that combines *Siddha* remedies with hygiene protocols and post-vaccination care strategies, reinforcing public health and clinical relevance.
Instructions to Students (First 20 Minutes): Teacher will demonstrate the preparation of *Siddha immunity* formulations and discuss their therapeutic use in pediatric populations. Students will observe and take notes on ingredients, preparation steps, dosage, and benefits. They will also examine samples of medicinal plants and prepare for practical and planning activities aligned with immunization strategies.
Students' Activities
Step – 01 (70 Minutes): Students will prepare one *Siddha* immunity-boosting medicine *(e.g., lehyam or chooranam),* documenting each step and noting storage, dosage, and safety considerations. They will then reflect on how such preparations can be aligned with the timing and purpose of conventional immunization schedules to enhance pediatric immunity.
Step – 02 (70 Minutes): Students will identify and classify common *Siddha* medicinal plants used in pediatric immune support, recording their properties, usage forms, and specific disease prevention roles. Group discussions will explore plant-based formulations that complement vaccines and reduce post-vaccination symptoms.
Step – 03 (60 Minutes): Each group will develop and present a model *Siddha*-supported immunization camp plan. This will include pre-vaccination care, on-site hygiene

practices, integration of herbal remedies, dietary recommendations, and post-vaccination care strategies. Presentations will focus on feasibility, public health alignment, and child safety.
Assessment (Final 20 Minutes): Teacher will evaluate each group's plan and practical work using a structured checklist covering formulation accuracy, plant knowledge, camp planning, and integration logic. A practical viva will assess individual understanding. Peer feedback will provide insights on clarity, creativity, and practical application of *Siddha* in immunization programs.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - This 25-mark modular assessment evaluates students' understanding of Siddha-based pediatric preventive strategies and public health applications. Through critical reading of classical concepts and quiz-based recall, students will demonstrate their grasp on topics including *thodam* balance, newborn care, immunity, seasonal prophylaxis, Siddha health camps, and integrative vaccination support. Instructions to Students : Students will complete two parts. In the first part, read an assigned article on Siddha pediatric preventive care and write a structured critical reflection. In the second part, attend an online quiz comprising multiple-choice and short-answer questions related to Siddha immunity, community health models, and childhood disease prevention. No materials allowed during the quiz. Instructions to Teachers : Select a Siddha text-based article or case study related to preventive pediatric care. Evaluate student reflections for clarity, integration of Siddha principles, and practical application. Prepare a 15-question online quiz (MCQs and SAQs) covering both theoretical and applied concepts from Module 19. Use a structured scoring rubric for consistency. Mark Distribution : Marks are divided across two assessment formats. Critical Reading Paper on Siddha preventive care carries 12 marks, assessing comprehension, application, and textual insight. Online Quiz with MCQs and short-answer questions on immunity, public health practices, and seasonal care carries 13 marks, evaluating recall and applied reasoning. Total – 25 Marks & Section – B. 25-marks. This assessment focuses on evaluating the student's ability to critically present Siddha-based pediatric nutrition guidelines, traditional assessment tools, and immunity enhancement practices. The viva tests their understanding of age-appropriate dietary planning, growth diagnostics, and integration of Siddha medicine into preventive child health strategies, including national immunization support. Instructions to Students: Prepare a structured 5-minute class presentation on an assigned topic from Module 19. Use visual aids where needed. After the presentation, participate in a viva to explain the rationale, Siddha principles, and clinical applications of your topic in pediatric health. Be prepared to discuss traditional and modern integration points. Instructions to Teachers: Assess their depth of knowledge, relevance to Siddha pediatric practice, and clarity during presentation. In the viva, probe	4

students on immunity enhancement, traditional diagnostic skills, and preventive nutrition protocols. Emphasize originality, application relevance, and understanding of Siddha immunological logic.
Mark Distribution: Marks are distributed as follows: 10 marks for content accuracy and relevance to Siddha principles during the presentation, 5 marks for effective use of traditional references and visual aids, 7 marks for logical justification and clinical reasoning during the viva, and 3 marks for communication clarity and confident delivery.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).

Module 20 : ?????????????? ???????? ??????? ???? ????????????? ????? ?????????? Kuzhanthaigalukkaana Maruthuva mattrum Pothu Sugatharathil Siddha Maruthuvam (Clinical Applications and Public Health in Siddha Pediatrics)

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

Describe Siddha remedies for common pediatric ailments and immune boosting.
Discuss public health laws and child healthcare rights in Siddha context.
Apply Siddha preventive therapies and community education strategies.
Evaluate the integration of Siddha in national pediatric health programs.
Assess the role of WHO, UNICEF, and Siddha in global child health.
Demonstrate awareness of Siddha-based legal and public health interventions.

M 20 Unit 1 ??????? ???? ??????????? ????? ???????? ??????? ??????? – Kuzhanthai Paruva Noigalukku Siddha Maruthuva Thaduppu Muraigal - Siddha-based Preventive Therapies for Childhood Diseases

20.1.1 Prevention and clinical nutrition for Common Cold, Fever, and Cough – Clinical nutrition usage, herbal decongestion, respiratory relief, febrile condition management, child-friendly Siddha interventions.
20.1.2 Prevention and clinical nutrition to Diarrhea and Digestive Disorders – Food and siddha formulations, indigestion control, bowel regulation, herbal dietary

integration, digestive system stabilization.
20.1.3 Dietary advices for Skin and Respiratory Conditions – Food and prevention stratagies for Eczema, pediatric asthma management, external herbal applications, skin-respiratory wellness maintenance.
20.1.4 Prevention and dietetics for Allergies and Immune Boosting with *Kayakarpam* – Allergy control, immune resilience enhancement, herbal immune modulators, long-term disease prevention.

References: 27,36,41

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO4	Describe Siddha remedies for pediatric respiratory, skin, and digestive health conditions.	1	Lecture	CAN	Knows-how	L,L&GD, L&PPT
CO1,CO3,CO4	Discuss Siddha approaches for pediatric allergies, immune enhancement, and disease prevention strategies.	1	Lecture	CAN	Knows-how	L&GD,PL
CO4,CO8	Examine Kaappu use in Siddha for preventing childhood diseases and boosting immunity.	1	Lecture	CAN	Knows-how	PrBL,PL
CO3,CO5,CO6	Perform *Siddha* remedy preparation for common pediatric ailments	3	Experiential-Learning 20.1	PSY-GUD	Does	D,PL,RLE
CO3,CO5,CO6	Prepare *Siddha* remedies and *Kaappu* for allergy and immunity	4	Experiential-Learning 20.2	PSY-GUD	Does	D,PL
CO3,CO7	Demonstrate *Siddha Kaappu* preparation with scientific justification.	2	Practical Training 20.1	PSY-MEC	Shows-how	PAL,D,RLE

M 20 Unit 2 ??????? ???????????? ???? ?????????? ????? – Kuzhanthai Paramarippil Pothu Sugatharathin Pangu - Public Health Interventions in Pediatric Care

20.2.1 Public Health Laws for Pediatric Care – Siddha integration in public health, child health regulations, legislative frameworks, community wellness mandates.
20.2.2 Role of Public Health Legislations for Children – Pediatric Siddha access, child-centered policy development, government health initiatives, care equity promotion.
20.2.3 Health Rights for Children and Legal Protection – Legal entitlements, Siddha healthcare accessibility, child protection statutes, rights-based clinical practices.
20.2.4 Juvenile Judiciary and Healthcare – Child welfare advocacy, legal-therapeutic coordination, Siddha's role in justice-linked pediatric health programs.
20.2.5 Framework of Public Health Interventions – Holistic child health models, Siddha preventive outreach, community intervention strategies, population-level wellness planning.

References: 27,79,90

3A	3B	3C	3D	3E	3F	3G
CO4,CO5,CO8	Define public health laws that influence pediatric care, with a focus on the role of Siddha in regulatory frameworks.	1	Lecture	CAN	Knows-how	L
CO4,CO7	Discuss the significance of health policies and legislation supporting access to Siddha care for children.	1	Lecture	CC	Knows-how	L&GD,TPW,L,TBL
CO4,CO7	Analyze juvenile judiciary's role in protecting child health rights through Siddha healthcare integration.	1	Lecture	CAN	Knows-how	L,TPW,L&GD
CO4,CO7,CO8	Demonstrate value for child health rights and legal protections	3	Experiential-Learning 20.3	AFT-VAL	Does	DIS,RP,CBL
CO4,CO7,CO8	Organize pediatric *Siddha* care plans aligned with legal standards	4	Experiential-Learning 20.4	AFT-SET	Does	DIS,W,CBL,RP
CO4,CO6,CO7	Evaluate legal frameworks supporting *Siddha* pediatric health delivery.	3	Practical Training 20.2	CE	Shows-how	SY,TBL,RP,DSN
CO4,CO6,CO7	Evaluate legal frameworks supporting *Siddha* pediatric strategies.	3	Practical	CE	Shows-	TBL,PAL

			Training 20.3		how	,DIS,SY

M 20 Unit 3 ??????? ????????????? ????? ???????? ???? ????? ??????? ????????????? – Kuzhanthai Maruthuvathil Siddha Maruthuva Samooga Kalvi matrum Vizhippunarvu - Community Education and Awareness in Siddha Pediatrics

20.3.1 Importance of Community Education – Siddha health dissemination, childhood disease prevention awareness, public engagement strategies, community wellness education.
20.3.2 Pediatric Health Scenario in India – National child health challenges, Siddha healthcare role, integrative pediatric intervention potential, system-based gaps.
20.3.3 Health Policies and their Role in Siddha – Policy framework alignment, Siddha pediatric inclusion, government health planning, traditional-modern system integration.
20.3.4 Legal Rights for Children in Health and Nutrition – Pediatric nutrition entitlements, health justice, Siddha-based child rights advocacy, statutory protections.
20.3.5 Awareness Programs for Parents and Schools – Preventive care promotion, Siddha health literacy, school-parent education models, pediatric community engagement.

References: 27,47,80,89

3A	3B	3C	3D	3E	3F	3G
CO4,CO7	Discuss community education's role in promoting Siddha principles for childhood disease prevention.	1	Lecture	CC	Knows-how	L&GD,DIS
CO4,CO6,CO8	Design community health models integrating *Siddha* and national policy	4	Experiential-Learning 20.5	CS	Does	PER,L
CO4,CO6,CO8	Demonstrate effective *Siddha*-based health communication for schools	4	Experiential-Learning 20.6	AFT-RES	Does	RP,D,SIM
CO2,CO4,CO5	Describe policies, rights, and programs supporting Siddha pediatric care in community health.	1	Lecture	CS	Knows-how	PL,DIS
CO4,CO7	Adapt community awareness on preventive *Siddha* pediatric practices.	3	Practical Training 20.4	PSY-ORG	Shows-how	FV,PL,TBL,PER

CO4,CO5,CO7	Advocate public health through *Siddha* pediatric education campaigns.	3	Practical Training 20.5	PSY-ORG	Shows-how	RP,LS,DIS,C_L

M 20 Unit 4 ????? ??????? ??????? ??????? ???????? ??????? ?????????? – Thesiaya matrum Sarvadesa Kuzhanthai Maruthuva Sugathara Thittangal - National and Global Pediatric Health Programs

20.4.1 Overview of National Pediatric Health Programs – Government pediatric schemes, Siddha incorporation strategies, child health promotion, national healthcare alignment.
20.4.2 International Pediatric Health Initiatives – WHO and UNICEF collaborations, global child wellness goals, Siddha relevance in international frameworks.
20.4.3 Role of WHO and UNICEF in Pediatric Care – Global pediatric advocacy, immunization and nutrition support, Siddha system contribution pathways.
20.4.4 Maternal and Child Health Programs – Integrated maternal-child care, Siddha preventive applications, institutional health support programs, outcome enhancement.
20.4.5 Global Health Screenings and Siddha Integration – Pediatric screening models, *Siddha* diagnostic roles, international health monitoring, holistic care opportunities.

References: 27,41,47,89

3A	3B	3C	3D	3E	3F	3G
CO4,CO5,CO7	Develop integration strategies for *Siddha* in pediatric health programs	4	Experiential-Learning 20.7	CS	Does	TPW,SIM,SY
CO2,CO4,CO5	Discuss pediatric health programs and integrate Siddha practices to support child healthcare.	1	Lecture	CC	Knows-how	DIS,PrBL
CO2,CO4	Analyze the role of WHO, UNICEF, and maternal-child health programs in global pediatric health and identify opportunities for Siddha's contributions.	1	Lecture	CAN	Knows-how	DIS,PL
CO4,CO5,CO7	Apply integrative models linking *Siddha* and global pediatric policies.	3	Practical Training 20.6	CAN	Shows-how	DIS,TBL,L&GD,BS,SDL
CO4,CO5,CO6	Design integrative *Siddha* proposals for public health programs.	3	Practical	CS	Shows-	PER,DIS,

			Training 20.7		how	PrBL,RP

Practical Training Activity

Practical Training 20.1 : Preparation and Scientific Appraisal of *Siddha Kaappu* for Pediatric Prophylaxis

Total Duration of the Activities: 2 Hours
This session introduces the preparation and application of *Siddha Kaappu (e.g., Vasambu Kaappu, Theerai Kaappu, Aimpon Kaappu)* traditionally used to protect children from illness. Students will learn classical indications, step-by-step preparation, and observe the pharmacological relevance of each ingredient. Integration with current pediatric wellness concepts will be explored through simulation and scientific discussion.
Instructions to Students (First 20 Minutes): Teacher will demonstrate the preparation of a traditional *Kaappu* and explain its cultural, therapeutic, and phytochemical relevance. Students should note ingredients like *Vasambu, Theerai, and Aimpon,* understand hygiene protocols, age-specific variations, and the role of *Kaappu* in Siddha preventive pediatrics.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Students will prepare one type of *Kaappu (e.g., Vasambu Kaappu),* document preparation steps, and simulate application on a peer or model, ensuring hygienic handling and traditional accuracy.
Step – 02 (Next 40 Minutes): Students will write a scientific commentary linking *Kaappu* ingredients with modern pharmacological actions, including antimicrobial and neuroprotective roles. Ethical integration into preventive pediatric care will also be discussed.
Assessment Methods (Final 20 Minutes):Teacher will evaluate the student's preparation using a checklist and conduct a viva to assess knowledge on ingredient actions and clinical applicability. Peer assessment will gauge collaboration, presentation clarity, and scientific depth of commentary.

Practical Training 20.2 : Symposium on Public Health Legislations and Pediatric *Siddha* Care

Total Duration of the Activities: 3 Hours
This symposium enables students to critically explore how public health legislations and national child health policies intersect with *Siddha* pediatric care. Topics include child protection laws, integration of *Siddha* in AYUSH and school health programs, and ethical frameworks for pediatric *Siddha practice*. Students will present, discuss, and simulate policy-based decisions.
Instructions to Students (First 30 Minutes): Teacher will brief students on legal and policy frameworks such as RBSK, National Health Policy, and Drugs and Cosmetics Act (AYUSH). Each group will be assigned a theme related to pediatric *Siddha* public health integration and guided to prepare presentations with legal references and clinical relevance.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Groups will present on their assigned themes, highlighting laws and programs supporting *Siddha* pediatric care, using real-life examples and policy suggestions.
Step – 02 (Next 60 Minutes):A moderated panel discussion will follow, including Q&A, peer critiques, and role-play scenarios involving legal dilemmas such as vaccination

refusal or mandatory reporting of child health concerns.
Assessment Methods (Final 30 Minutes): Teacher will assess each group using a rubric evaluating policy interpretation, presentation clarity, and relevance. Peer assessment will gauge teamwork and discussion quality. Realism and ethics in role-play will also be part of the final evaluation.

Practical Training 20.3 : Symposium on Child Health Rights, Legal Frameworks, and *Siddha* Public Health

Total Duration of the Activities: 3 Hours
This symposium focuses on integrating *Siddha* pediatric care with legal protections and child health rights. Students explore key legislations like the Juvenile Justice Act and Right to Health and analyze how *Siddha* preventive and rehabilitative approaches can align with legal and public health missions. Activities include topic presentations, debates, and scenario-based role plays to reinforce legal and clinical synergy.
Instructions to Students (First 30 Minutes): Teacher will assign students to thematic groups focused on topics such as *Siddha* integration in juvenile legal care, child health rights, and public health strategies. Guidance will be provided on referring to national child welfare laws, *Siddha* public health guidelines, and WHO child rights frameworks. Orientation on framing debates and simulating legal-health scenarios will be given.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes):Each group will present on topics like *Siddha* in juvenile rehabilitation, preventive pediatrics in outreach, and legal alignment for traditional care. Charts, visuals, and real-world examples will be used to illustrate integration strategies.
Step – 02 (Next 60 Minutes): Students will conduct a debate on legal-ethical dilemmas in *Siddha* pediatric care (e.g., consent issues, traditional-modern integration). This will be followed by a role-play simulating interaction between a *Siddha* doctor, public health officer, and parent addressing malnutrition and care access.
Assessment Methods (Final 30 Minutes):Teacher will assess group work using a rubric based on legal accuracy, clarity, collaboration, and relevance to *Siddha* frameworks. Debate and role-play will be evaluated for critical reasoning, empathy, and application. Peer assessment will support individual contribution tracking and reflective learning.

Practical Training 20.4 : Community Awareness Program on Preventive *Siddha* Pediatric Care

Total Duration of the Activities: 3 Hours
This practical session focuses on experiential learning through community engagement. Students will organize and conduct school or community-based awareness sessions for parents, teachers, or caregivers. Themes include *Siddha*-based pediatric nutrition, immunity, seasonal regimens, and home remedies. Students will create and use IEC materials, deliver health talks, and document the event, learning the essentials of communication, outreach, and public health education in *Siddha.*
Instructions to Students (First 30 Minutes): Students will be grouped and asked to plan a mock or real awareness program targeting school staff, parents, or both. Teacher will guide them to select a theme, prepare materials like posters or handouts, assign roles (speaker, coordinator, recorder), and plan the sequence. All materials and talks should be scientifically valid, culturally appropriate, and audience-friendly.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will deliver their awareness sessions with demonstrations, short talks, and distribution of charts, pamphlets, and herbal remedy displays. Audience questions will be addressed interactively.

Step – 02 (Next 60 Minutes): Each group will gather audience feedback, document their session through photos or videos, and compile key observations. Emphasis will be on clarity, engagement, and participant understanding of *Siddha* pediatric concepts.
Assessment Methods (Final 30 Minutes): Teacher will assess students based on presentation quality, audience connection, and documentation completeness using a structured checklist. Peer review will provide insights into collaboration, creativity, and effectiveness of health message delivery. A brief reflective discussion will finalize learning outcomes.

Practical Training 20.5 : Community Education and Policy Integration for *Siddha* Pediatric Care

Total Duration of the Activities: 3 Hours
This session trains students to link *Siddha* pediatric care with public health policy through simulated health education programs. Groups will select community themes like *Siddha* nutrition awareness or seasonal immunity promotion. They will role-play public health educators, use IEC tools, and explore the role of policies such as Rashtriya Bal Swasthya Karyakram (RBSK) and National AYUSH Mission. A structured debate will help evaluate policy barriers and integrative opportunities. A written campaign plan will be submitted for review.
Instructions to Students (First 30 Minutes): Teacher will brief students on policy-relevant *Siddha* pediatric interventions and guide them in preparing educational materials. Each group will select a community theme, draft objectives for a simulated awareness campaign, and align the plan with child health and AYUSH policies. Talking points, posters, and scripts must be prepared collaboratively.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will perform simulated community outreach through role play. They will enact school or village health talks using flipcharts, posters, and *Siddha* dietary or immunity advice. Each group must demonstrate interactive community engagement.
Step – 02 (Next 60 Minutes): Students will debate on Ayush policy integration in school health, using real-life policy references. Each team will argue for or against mandating *Siddha* pediatric interventions and discuss feasibility, ethical implications, and rural impact.
Assessment Methods (Final 30 Minutes): Teacher will assess the role play and debate using rubrics focused on content accuracy, communication, and audience engagement. Group reports will be reviewed for policy alignment and *Siddha* relevance. Peer feedback will support team reflection and help evaluate critical thinking and campaign planning.

Practical Training 20.6 : Integrating *Siddha* Practices with National and Global Pediatric Health Programs

Total Duration of the Activities: 3 Hours
This session enables students to analyze national and international pediatric health initiatives and formulate proposals for integrating *Siddha* practices. Divided into three teams, students will explore Indian programs, Rashtriya Bal Swasthya Karyakram (RBSK), National Programme for Control of Deafness and Communicable Diseases (NPCDCS), Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A), global strategies Integrated Management of Childhood Illness (IMCI),United Nations International Children's Emergency Fund (UNICEF), and policy frameworks of WHO/UNICEF. Using official portals and *Siddha texts*, they will design concept maps, present feasible integrative approaches, and summarize insights in group reports. Faculty will facilitate critical analysis and interdisciplinary understanding throughout

the session.
Instructions to Students (First 15 Minutes):Teacher will orient students to the session objectives, provide key reference sources (WHO, UNICEF, MoHFW portals), and distribute guiding questions. Each group will be assigned a theme and instructed to identify intersections between pediatric *Siddha care* and public health programs in terms of immunity, nutrition, and child development strategies.
Students' Activities (Next 150 Minutes):
Step – 01 (First 75 Minutes):Groups will research their assigned topic using *Siddha* and modern policy references. They will develop a visual concept map or flow chart showing connections between *Siddha principles* and public health frameworks and draft an outline for their integration proposal.
Step – 02 (Next 75 Minutes):Each group will deliver a 5–7 minute presentation of their concept map and proposed *Siddha* integration. Open discussions will follow, where teams receive feedback and clarify policy relevance and implementation challenges of their proposals.
Assessment Methods (Final 15 Minutes): Teacher will assess students based on presentation quality, critical analysis, policy alignment, and relevance of proposed integration models using structured rubrics and checklists. A reflective group report summarizing learning outcomes, insights, and action suggestions will also be submitted for final evaluation.

Practical Training 20.7 : Simulated Proposal Development for *Siddha* Integration in Maternal and Child Health Programs

Total Duration of the Activities: 3 Hours
This practical session simulates a *Siddha* Research & Public Health Advisory Committee developing and pitching a concept proposal to the Ministry of Ayush. Students will be divided into 2–3 teams, each with assigned roles such as Project Lead, Pediatric *Siddha* Expert, and Data Analyst. They will draft a 25-page dummy project proposal aligned with RMNCH+A, RBSK, and WHO pediatric screening frameworks, integrating *Siddha* contributions in preventive care and child health. The session concludes with a mock pitch to a Ministry panel comprising faculty and peer reviewers.
Instructions to Students (First 15 Minutes):Teacher will provide an overview of key national programs (RMNCH+A, RBSK, Poshan Abhiyaan) and relevant WHO child health frameworks. Students will receive a project proposal template and be guided on team roles, timelines, and expectations. Focus areas include *Siddha's* relevance in nutrition, screening, and immunity support for children and mothers.
Students' Activities (Next 150 Minutes):
Step – 01 (First 75 Minutes): Teams will brainstorm and create a 50-word concept summary, followed by a 25-page draft proposal. They will design a brief pitch presentation and assign roles for a simulated policy pitch to a Ministry panel. Key sections include goals, strategy, implementation, and expected outcomes.
Step – 02 (Next 75 Minutes): Each team will present their proposal to a simulated Ministry of Ayush panel composed of peers and faculty. Peer teams will pose questions, suggest improvements, and offer critical feedback. Teacher will moderate and comment on innovation, feasibility, and clarity of the proposed *Siddha* interventions.
Assessment Methods (Final 15 Minutes): Teacher will assess each team using a structured proposal rubric (vision, clarity, relevance, feasibility) and a role-play observation checklist evaluating teamwork, pitch quality, and response to critique. Faculty will provide comment sheets for personalized feedback and improvement suggestions. Peer reflections will also contribute to final scoring.

Experiential learning Activity

Experiential-Learning 20.1 : Preparation and Application of *Siddha* Remedies in Pediatric Care

Total Duration of the Activities: 3 Hours

Students will engage in a hands-on *Siddha* practical workshop aimed at preparing and applying remedies for common pediatric conditions such as cold, cough, fever, and digestive disturbances. Faculty will demonstrate traditional remedies including herbal decoctions, powders, pastes, oils, and steam therapy. Students will replicate the processes, apply external therapies on models, and document therapeutic actions, dosage, and safety. The focus is on clinical translation and understanding remedy suitability for pediatric care.

Instructions to Students (First 20 Minutes): Teacher will demonstrate the preparation of herbal remedies like *Vasambu, Sukku, and Vilvam,* along with steam therapy. Students must take notes on ingredient selection, preparation steps, dosage adjustments, and safety protocols specific to pediatric age groups. Grouping for hands-on sessions will be done, and students will receive safety instructions.

Students' Activities

Step – 01 (70 Minutes): Students will prepare selected *Siddha* remedies including herbal decoctions, powders, and medicated oils used for respiratory and digestive conditions. They will document ingredients, proportions, preparation steps, and therapeutic actions, and discuss safe usage and dosage considerations in pediatric settings.

Step – 02 (70 Minutes): Students will apply external therapies including steam inhalation and herbal pastes on simulation models. They will practice correct application techniques, explain post-therapy care, and record expected therapeutic outcomes, hygiene protocols, and caregiver instructions for conditions such as eczema and cold.

Assessment (Final 20 Minutes): Teacher will assess each group's performance using a checklist and direct observation of procedure skills (DOPS). Evaluation will focus on remedy preparation accuracy, safety awareness, procedural skills, and clarity in therapeutic rationale. A short viva will assess individual understanding of *Siddha* pediatric therapeutic applications.

Experiential-Learning 20.2 : *Siddha* Formulations and *Kaappu* Practices for Pediatric Immunity

Total Duration of the Activities: 4 Hours

This session focuses on developing students' practical skills in managing pediatric allergies and enhancing immunity using *Siddha* dietary and preventive methods. It begins with a demonstration on preparing *herbal decoctions, powders, and Kayakarpam formulations* for long-term immune support. Students will then engage in crafting traditional *Kaappu* (protective talismans), including *Vasambu, Thaerai, and Aimpon Kaappu.* These practices integrate physical and spiritual aspects of *Siddha preventive care,* promoting holistic well-being in children. The activity emphasizes therapeutic accuracy, traditional methods, and cultural relevance.

Instructions to Students (First 20 Minutes): Teacher will demonstrate the preparation of herbal remedies and *Kayakarpam* formulations for pediatric allergy management. Students will observe the making of *Vasambu, Thaerai, and Aimpon Kaappu* talismans, taking notes on ingredients, preparation methods, and ritualistic applications. Instructions for safe handling and traditional significance will be provided.

Students' Activities

Step – 01 (70 Minutes): Students will prepare *Siddha* herbal remedies for allergy management, including decoctions and medicated powders. They will document ingredient lists, preparation steps, dosage, mode of administration, and discuss therapeutic indications and contraindications in pediatric settings.

Step – 02 (70 Minutes): Students will prepare *Kayakarpam* formulations using traditional ingredients for long-term immunity support in children. Discussions will be held

on their rejuvenative benefits, application duration, dietary support, and preventive care integration based on classical Siddha texts.
Step – 03 (60 Minutes): Students will craft protective *Kaappu* talismans—*Vasambu Kaappu, Thaerai Kaappu, and Aimpon Kaappu*—under guidance. They will record the purpose, preparation rituals, safety practices, and pediatric usage instructions. Discussions will cover both symbolic significance and preventive utility in childhood health.
Assessment (Final 20 Minutes): Teacher will assess students' preparation accuracy, cultural competence, and presentation through DOPS and viva. Students' work will be evaluated using a checklist focusing on Siddha relevance, safety, and clarity. Peer feedback will highlight practical understanding and creative integration of knowledge.

Experiential-Learning 20.3 : Legal and Policy Advocacy in *Siddha* Pediatric Public Health

Total Duration of the Activities: 3 Hours
This interactive session introduces students to the legal and public health framework that supports pediatric *Siddha* healthcare. It begins with a presentation on child protection laws, public health policies, and legal acts that facilitate ethical, accessible care. Real-world examples and policy documents will guide students in understanding child rights, informed consent, and institutional responsibilities. Students will then work through a legal case scenario, analyzing how legal protections apply in *Siddha practice*. The session concludes with a role-play where students simulate pediatric consent and care advocacy interactions.
Instructions to Students (First 20 Minutes): Teacher will present key public health legislations, including child welfare and healthcare access laws. Students will examine how these regulations ensure safe, ethical *Siddha care.* They will be grouped and introduced to a legal case scenario for further discussion and role-play simulation.
Students' Activities
Step – 01 (70 Minutes): Students will work in groups to analyze a real-life or hypothetical legal scenario involving pediatric *Siddha care*—such as parental refusal of care, child rights violation, or healthcare access gaps. They will identify applicable legal acts and develop resolution strategies emphasizing ethical practice and public health alignment.
Step – 02 (70 Minutes):Students will perform a role-play simulating a scenario such as obtaining pediatric care consent, handling a legal dispute, or advocating for *Siddha* services under child health policies. Each group will document legislative relevance and discuss their reflections on legal empowerment and community education.
Assessment (Final 20 Minutes): Teacher will assess group performance using a rubric focused on legal understanding, communication clarity, and advocacy accuracy. Role-play enactments will be observed for ethical sensitivity and legal alignment. Students will also submit a brief reflective logbook summarizing key learnings and the role of policy in *Siddha* pediatric care.

Experiential-Learning 20.4 : Legal Integration and Public Health Advocacy in *Siddha* Pediatrics

Total Duration of the Activities: 4 Hours
This 4-hour workshop introduces students to the intersection of legal policy, child rights, and *Siddha* public health responsibilities. It begins with a guest expert or faculty lecture covering juvenile health rights, legal frameworks, and how *Siddha* interventions align with these structures. Students then analyze a real or simulated case showing *Siddha's* role in improving child health within legal norms. They collaboratively design a new intervention plan and simulate its presentation to health and legal authorities, fostering advocacy and ethical awareness.
Instructions to Students (First 20 Minutes): Teacher or guest expert will introduce legal policies related to child health, covering acts such as the Juvenile Justice Act,

POCSO, and NHP-*Siddha* integration. Students will take notes on legal rights, ethical responsibilities, and examples of *Siddha care* meeting public health mandates. Prepare for simulation tasks and planning.
Students' Activities
Step – 01 (70 Minutes): Students will analyze a *Siddha*-based pediatric public health case (e.g., anemia prevention camp, malnutrition reversal using *Siddha* diet, or herbal fumigation in tribal schools). They will identify how the case aligned with public health standards and legal protections, and reflect on policy compliance.
Step – 02 (70 Minutes): Each group will design a *Siddha* pediatric intervention plan that addresses a community challenge (e.g., seasonal illness prevention, postnatal *Siddha* care access). The plan will incorporate legal standards, preventive guidelines, and public health communication strategies aligned with national and local policies.
Step – 03 (60 Minutes): Groups will simulate a public health hearing or advisory session where they present their *Siddha* intervention plan to a panel role-playing as legal advisors and health officials. Emphasis will be on child rights advocacy, ethical care, and policy alignment, showcasing *Siddha's* contribution to child welfare.
Assessment (Final 20 Minutes): Teacher will use a structured checklist to evaluate the intervention plan's legal coherence, public health relevance, and team communication. Role-play observation will assess advocacy and ethical alignment. A brief logbook entry will capture each student's reflection on integrating *Siddha care* with pediatric legal protections.

Experiential-Learning 20.5 : *Siddha*-Based Community Education for Pediatric Health Promotion

Total Duration of the Activities: 4 Hours
This 4-hour session trains students to design and present community education models that apply *Siddha* principles to address pediatric health challenges in India. It begins with a lecture on *Siddha*-based health education strategies and key national health policies. Students then analyze real-world pediatric health data, identify current gaps, and conceptualize community campaigns. The final presentations focus on the application of *Siddha* preventive care principles supported by policy integration, fostering communication and advocacy skills in public health.
Instructions to Students (First 20 Minutes): Teacher will introduce the session with examples of *Siddha* community outreach and preventive care programs. Students will be shown pediatric health reports and briefed on government schemes like RMNCH+A and RBSK. They must note how these can be linked to *Siddha* education strategies, preparing to develop campaigns.
Students' Activities
Step – 01 (70 Minutes): Students will review pediatric health indicators such as nutrition, respiratory conditions, and vaccination gaps. They will identify areas where *Siddha* interventions like diet education, herbal care, and external therapies can address community health challenges through structured outreach.
Step – 02 (70 Minutes): Each group will design a comprehensive *Siddha*-based community health education model using visual aids like posters, pamphlets, and role-play scripts. Their campaign must promote awareness of childhood disease prevention and show alignment with national public health policies that support *Siddha* systems.
Step – 03 (60 Minutes): Groups will present their *Siddha* community education campaign to the class, highlighting its strategy, health outcomes addressed, and how it fits within legal and policy frameworks. Peers will offer feedback and raise questions about implementation in real public health contexts.
Assessment (Final 20 Minutes): Teacher will assess presentations using a checklist focusing on data interpretation, policy alignment, *Siddha* integration, and communication quality. Peer reviews will evaluate clarity and educational value. Students will submit a brief reflective report on how *Siddha* can be positioned within pediatric public health education.

Experiential-Learning 20.6 : *Siddha* Awareness Program for Parents and School Communities

Total Duration of the Activities: 4 Hours

This 4-hour session immerses students in designing and simulating *Siddha*-based awareness programs tailored for parents and school communities. Beginning with an introduction to *Siddha principles* for pediatric health, students will form teams to prepare structured awareness sessions. The sessions include developing visual aids and simplified health messages. The activity culminates with a simulated role-play, where teams deliver their awareness programs to peers posing as parents and teachers, focusing on clarity, practicality, and community relevance.

Instructions to Students (First 20 Minutes): Teacher will explain strategies for communicating *Siddha*-based pediatric care to non-medical audiences. Students will learn how to use simple language, visuals, and relatable examples to convey key messages. The teacher will also discuss preventive themes like seasonal care, early symptom recognition, and household practices.

Students' Activities

Step – 01 (70 Minutes): Students will collaborate in teams to draft *Siddha* awareness content suitable for parent-teacher meetings. Topics include dietary tips for immunity, common childhood illnesses, preventive herbs, and lifestyle routines. Teams will structure the session to be interactive and culturally appropriate.

Step – 02 (70 Minutes): Each team will prepare visual aids such as posters, brochures, or presentations, and rehearse delivery using role-play. They will tailor content to a lay audience, focusing on practical advice and easy implementation. Visual clarity and cultural respect will be emphasized.

Step – 03 (60 Minutes): Students will simulate their awareness sessions by presenting to peers acting as parents and school staff. Role-play will test engagement, confidence, and relevance. Peers will offer constructive feedback on the clarity of communication and cultural appropriateness of health guidance.

Assessment (Final 20 Minutes): Teacher will assess based on content accuracy, communication effectiveness, cultural sensitivity, and student participation. Peer feedback will be collected through a structured rubric. Each team will submit a reflective summary on how *Siddha* awareness strategies can be adapted for community outreach.

Experiential-Learning 20.7 : Integrating *Siddha* into National and Global Pediatric Health Programs

Total Duration of the Activities: 4 Hours

This session combines seminar learning, group-based project work, and proposal simulation to explore how *Siddha* medicine can be integrated into major pediatric health programs like RBSK, ICDS, WHO's IMNCI, and UNICEF initiatives. Students will analyze the goals and components of these programs and formulate *Siddha*-centered proposals emphasizing preventive care, nutrition, and holistic therapies. Each team will simulate presenting to a public health panel, encouraging critical thinking and intersystem collaboration.

Instructions to Students (First 20 Minutes): Teacher will introduce national and international pediatric initiatives, highlighting their structure, focus areas, and current health gaps. Students should note opportunities where *Siddha practices*—like herbal care, dietary strategies, or external therapies—could add value in maternal-child health, prevention, or immunological support.

Students' Activities

Step – 01 (70 Minutes): Each group will select a health program and critically analyze its goals, delivery methods, and target population. Students will identify entry points for *Siddha* contributions and map areas like school health, child development, or immunonutrition where traditional practices align with existing health efforts.

Step – 02 (70 Minutes): Groups will draft a *Siddha* integration strategy that includes specific interventions such as *Siddha* screening methods, preventive nutrition advice, or child wellness therapies. Students will align their strategy with program goals, highlight expected health outcomes, and ensure alignment with public health standards.
Step – 03 (60 Minutes): Groups will conduct a mock proposal presentation simulating a policy submission to health officials. Presentations must include the rationale, implementation plan, risk mitigation, and monitoring mechanisms. Students will engage in peer feedback and discuss the feasibility and scalability of their proposals.
Assessment (Final 20 Minutes): Teacher will evaluate each group's proposal presentation using a structured rubric focusing on clarity, feasibility, alignment with health program goals, and integration of *Siddha principles*. Peer assessments will contribute to collaborative and communication evaluation, and reflective feedback will be encouraged.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - 25 Marks This modular assessment evaluates students' understanding of Siddha-based pediatric clinical nutrition and legal-public health frameworks. Students will present a condition-specific nutrition-prevention protocol or policy interpretation in class and answer an open-book question testing their ability to apply Siddha principles in public health laws and child welfare programs. Instructions to Students : Select a pediatric condition or public health theme from the syllabus. Prepare a class presentation that includes Siddha-based nutrition/prevention plans or legal perspectives. Use classical references and modern alignment where relevant. In the written component, address a structured question on Siddha's role in clinical prevention and child health governance. Instructions to Teachers : Frame condition- or law-based questions that explore the student's ability to integrate Siddha principles with practical nutrition or legal strategies. Evaluate presentations for scientific accuracy and practical value. Assess the student's written response based on coherence, classical validity, and contemporary applicability in pediatric *Siddha* healthcare and public policy. Mark Distribution: Marks are distributed as follows: Presentation of Siddha-Based Clinical Nutrition or Public Health Application carries 10 marks, Open Book Written Answer on Preventive and Legal Strategy carries 7 marks, Use of Siddha Classical References and Logical Justification is allotted 5 marks, and Clarity and Confidence in Viva Discussion holds 3 marks. & Section – B. 25-marks. This modular assessment evaluates students' ability to visually communicate Siddha-based pediatric public health themes and orally justify their integration into national or global health strategies. Students will design a thematic poster and participate in an interview assessing their understanding of Siddha's role in awareness, policy alignment, and community engagement for child health promotion. Instructions to Students: Students will be provided one theme from the syllabus related to Siddha-based community education, pediatric rights, national health programs, or global child wellness initiatives. Prepare a poster that highlights the Siddha relevance, outreach model, and policy or wellness link. Participate in a brief interview to explain the poster's core message, Siddha justification, and health communication strategy.	4

Instructions to Teachers: Select themes that address pediatric community health, nutrition rights, health promotion programs, or Siddha integration with WHO/UNICEF goals. Assess students' posters for clarity, relevance, creativity, and Siddha alignment. During the interview, evaluate their conceptual justification, understanding of policy contexts, and ability to connect Siddha practice with legal and public health domains.
Mark Distribution: Marks are distributed based on four key components: Poster presentation on a Siddha-based public health or policy theme carries 10 marks. Oral justification of the poster message and integration of Siddha principles is allotted 7 marks. Use of classical references and logical clarity holds 5 marks, and interview coherence earns 3 marks.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).

Semester No : 5

Module 21 : ?????????????? ????? ?????????? - Kuzhanthaigalukkaana Siddha Marunthiyal (Siddha Pharmacology for Pediatrics)

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

Define pharmacology and explain its relevance in pediatric care.
Describe age-specific pharmacokinetics in neonates and children.
Discuss Siddha pharmacological approaches for common pediatric illnesses.
Describe the therapeutic use of herbal, mineral, and animal products in Siddha.
Evaluate the safety, efficacy, and dosage of Siddha pediatric medicines.
Classify pediatric drugs based on therapeutic systems in Siddha and modern care.

M 21 Unit 1 ???? ?????????? – Pothu Marunthiyal -General Pharmacology

21.1.1 Define Pharmacology and Its Scope – Drug origin, composition, pharmacokinetics, pharmacodynamics, modern pharmacology fundamentals, therapeutic science foundation.
21.1.2 Explain the Importance of Pharmacology in Pediatric Healthcare – Pediatric dosage safety, pharmacodynamic relevance, age-specific therapy, drug efficacy

optimization.
21.1.3 Identify the Branches of Pharmacology – Neuropharmacology, cardiovascular, respiratory, gastrointestinal applications, pediatric pharmacological specializations.
21.1.4 Describe the Pharmacological Process – Drug absorption, distribution, metabolism, excretion in children, pharmacokinetic variation across age groups.
21.1.5 Factors Influencing Drug Response – Genetic variability, age and weight dependence, disease interactions, drug-drug interaction concerns, pediatric therapeutic customization.

References: 115,127

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe pharmacology and explain its pediatric relevance, scope, kinetics, and dynamics fundamentals.	1	Lecture	CK	Know	L&GD,L
CO2,CO4,CO6	Discuss pharmacology basics and pediatric therapeutic relevance.	2	Practical Training 21.1	CC	Shows-how	EDU,JC,SDL,BL
CO2,CO4,CO6	Describe pediatric drug kinetics and individual response factors.	2	Practical Training 21.2	CC	Shows-how	TBL,PAL
CO2,CO4,CO8	Analyze OTC drug labels for pediatric pharmacological safety	3	Experiential-Learning 21.1	AFT-VAL	Does	DIS,CBL,RLE
CO2,CO4,CO5	Apply pediatric mg/kg dosing calculations ensuring safety and accuracy	3	Experiential-Learning 21.2	CAP	Does	PSM,SIM,PL
CO2,CO5,CO7	Identify pharmacology branches and describe pediatric pharmacokinetics, metabolism, and influencing drug response factors.	1	Lecture	CK	Know	L&GD
CO2,CO4,CO6	Describe foundational concepts in pediatric pharmacology application.	2	Practical Training 21.3	CC	Knows-how	SY
CO2,CO3,CO4	Evaluate the role and application of herbomineral and animal products in pediatric	2	Practical	CC	Knows-	JC,SY

	Siddha formulations.		Training 21.4		how	

M 21 Unit 2 ???????????? ???????? ????? ???????????? ?????????? - Kuzhanthaigalin udaleyakka Mandala Noigalukkana Marunthiyal Pediatric Systemic Pharmacology

21.2.1 Neonatal Pharmacology – Liver and renal immaturity, neonatal drug metabolism, toxicity risks, safety protocols, age-specific dosage adaptation.
21.2.2 Pediatric Neuropharmacology – Antiepileptics, stimulants, muscle relaxants, neurological condition management, pediatric neuropharmacokinetics.
21.2.3 Pediatric Cardiovascular Pharmacology – Congenital heart disease therapy, beta-blockers, ACE inhibitors, pediatric diuretic use, cardiovascular dosing concerns.
21.2.4 Pediatric Respiratory Pharmacology – Asthma and bronchitis treatment, bronchodilator and corticosteroid use, mucolytics, inhalation therapy dosing in children.
21.2.5 Pediatric Gastrointestinal Pharmacology – GERD and constipation management, antacids, antiemetics, laxatives, gastrointestinal drug pharmacodynamics in pediatrics.

References: 115,127,134

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Describe neonatal and pediatric neuropharmacology focusing on metabolism, safety, and treatment.	1	Lecture	CC	Know	PL,BL
CO1,CO2,CO5	Describe pediatric cardio-respiratory-gastro pharmacology with dosing, safety, and therapeutic applications.	1	Lecture	CC	Know	CBL,L
CO2,CO4,CO6	Apply pediatric system-wise pharmacology and safety principles.	2	Practical Training 21.5	CAP	Shows-how	TUT,REC
CO2,CO4,CO5	Analyze clinical data to plan pediatric pharmacologic interventions	4	Experiential-Learning 21.3	CAN	Does	PL,SIM,CBL
CO1,CO2,CO5	Analyze pediatric pharmacology principles across five clinical systems.	2	Practical Training 21.6	CAN	Shows-how	LS,DIS

M 21 Unit 3 ?????????????? ????? ???????? ?????????? – Kuzhanthaikalukkana Siddha Maruthuva Marunthiyal - Siddha Pediatric Pharmacology

21.3.1 Siddha Pediatric Medicines for Common Ailments – Fever, cough, cold, digestive issue remedies, classical formulations, symptom-targeted pediatric *Siddha* treatments.
21.3.2 Siddha Medicines for Pediatric Developmental Disorders – Autism and ADHD support, cognitive enhancement, neurodevelopmental regulation, specialized *Siddha* preparations.
21.3.3 Siddha Pharmacological Management of Pediatric Emergencies – Seizure control, high fever reduction, respiratory distress relief, emergency *Siddha* interventions.
21.3.4 Siddha Pediatric Pharmaceutics – Powders, oils, syrups formulation, pediatric dosage tailoring, child-friendly Siddha pharmaceutics.
21.3.5 Siddha Safety and Efficacy in Pediatrics – Toxicity prevention, safe formulation protocols, dosage precision, side effect minimization, therapeutic assurance.

References: 90,91,119,123

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO7	Describe Siddha medicines for pediatric ailments, developmental disorders, and neurocognitive support.	1	Lecture	CAN	Know	L&GD,DIS,BS
CO1,CO3,CO7	Describe Siddha pharmacology for pediatric emergencies and child-friendly dosage formulations.	1	Lecture	CAN	Know	TBL,BL,DIS
CO1,CO3,CO7	Discuss Siddha pediatric safety, dosage accuracy, and protocols ensuring therapeutic efficacy.	1	Lecture	CAN	Know	BS,DA,CBL
CO2,CO3,CO4	Prepare and evaluate *Siddha* pediatric medicines for common ailments with symptom-targeted treatments.	2	Practical Training 21.7	PSY-GUD	Shows-how	TBL
CO2,CO3,CO4	Participate in debate and discussion on the role of *Siddha* medicines in managing pediatric developmental disorders	2	Practical Training 21.8	AFT-RES	Shows-how	TBL,DIS
CO1,CO3,CO7	Analyze pediatric uses and safety of *Siddha* herbal plants	4	Experiential-Learning 21.4	CK	Does	FV,PL,RLE

CO1,CO3,CO4	Practice real-world *Siddha* pediatric clinical applications	4	Experiential-Learning 21.5	CC	Does	RLE,FV

M 21 Unit 4 ?????????????? ????? ???????????? ??????, ???? ??????? ??? ????????? – Kuzhanthaikalukkana Siddha Marunthugalil Mooliga, Thathu matrum Jeeva Porutkal -Herbal, Mineral, and Animal Products in Pediatric Formulations

21.4.1 Overview of Herbal, Mineral, and Animal Products in Siddha Pediatrics – Ingredient diversity, pediatric formulation foundation, traditional materia medica, health concern targeting.
21.4.2 Importance of Herbomineral and Animal Products in Pediatric Management – Growth promotion, nutritional correction, immune support, therapeutic versatility in child care.
21.4.3 Therapeutic Classification of Herbomineral Products – Digestive support agents, respiratory aids, immune boosters, neurodevelopmental enhancers, classification by action.
21.4.4 Preparation of Herbal and Mineral Pediatric Formulations – Child-specific dosage design, safety protocols, pharmaceutical standardization, pediatric Siddha preparation techniques.
21.4.5 Case Studies on Herbomineral Formulations in Pediatric Care – Clinical outcome documentation, successful pediatric treatments, holistic management illustration, formulation efficacy examples.

References: 90,91,119,123

3A	3B	3C	3D	3E	3F	3G
CO1,CO5,CO7	Describe preparation and clinical use of herbomineral formulations in Siddha pediatrics.	1	Lecture	CAP	Know	DIS,C_L,BS
CO1,CO5,CO7	Discuss herbal, mineral, animal products used in Siddha pediatric formulations and care.	1	Lecture	CAP	Know	DIS
CO1,CO5,CO7	Discuss herbomineral products based on pediatric therapeutic actions and benefits.	1	Lecture	CAP	Know	C_L,REC,DIS
CO2,CO3,CO4	Prepare and demonstrate the application of herbal, mineral, and animal products in *Siddha* pediatrics	2	Practical Training 21.9	PSY-GUD	Shows-how	D,CBL
CO2,CO3,CO4	Evaluate clinical outcomes and efficacy of herbomineral formulations in pediatric	2	Practical	CE	Shows-	PER,CBL

	treatments.		Training 21.10		how	
CO3,CO5,CO7	Perform QC tests on *Siddha* pediatric formulations accurately	4	Experiential-Learning 21.6	PSY-MEC	Does	TBL,D,PBL,LRI
CO2,CO3,CO5	Analyze *Siddha* pediatric drug claims through literature and testing	4	Experiential-Learning 21.7	CAN	Does	LRI,TBL,CBL

Practical Training Activity

Practical Training 21.1 : Understanding Pharmacology and Its Pediatric Relevance

Total Duration of the Activities: 2 Hours
This practical introduces students to the fundamentals of pharmacology and its relevance in pediatric healthcare. Students will explore drug origins, composition, pharmacokinetics, and pharmacodynamics through interactive modules and scientific article reviews. They will analyze branches of pharmacology with a pediatric focus—covering neuro, respiratory, cardiovascular, and GI systems—and reflect on dosage safety, efficacy, and age-specific considerations. Learning will integrate modern knowledge with critical discussion and visual storytelling.
Instructions to Students (First 20 Minutes): Teacher will introduce the scope and significance of pharmacology using blended materials—animated video clips, simplified flowcharts, and sample pediatric cases. Students will be divided into three groups and each assigned a topic (definition and scope, importance in pediatrics, branches of pharmacology). Journal articles and excerpts from standard texts will be provided for review.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Each group will study their assigned topic using guided reading and interactive media. Students will highlight key pharmacological concepts and prepare a brief summary. Group discussions will follow on pediatric applications such as safe dosage, drug metabolism in children, and therapy optimization.
Step – 02 (Next 40 Minutes): Groups will present their findings through creative formats—infographics, role-play, or short presentations. They will identify clinical situations where different branches of pharmacology are applied. Students will also reflect through journal club discussion on how pharmacology bridges theory and pediatric practice.
Assessment Methods (Final 20 Minutes):Teacher will assess students through class presentations on clarity, depth, and engagement. Creative writing or reflection essays on the role of pharmacology in pediatric care will be evaluated. Critical reading worksheets will be submitted for assessment of comprehension and analytical skills. Peer feedback will supplement faculty evaluations.

Practical Training 21.2 : Understanding Pediatric Pharmacokinetics and Drug Response Variation

Total Duration of the Activities: 2 Hours
This practical session explores pediatric pharmacological processes including absorption, distribution, metabolism, and excretion (ADME) and the impact of developmental physiology on drug handling. Students will also analyze factors influencing drug response such as genetics, weight, age, and co-morbidities. The session promotes collaborative learning through team problem-solving, peer instruction, and visual communication. Emphasis is on customizing pediatric therapy and safe drug practices using pharmacokinetic principles.
Instructions to Students (First 20 Minutes): Teacher will explain the ADME processes in children using comparative visuals, emphasizing age-related pharmacokinetic variations. An introduction to factors influencing pediatric drug response, including drug-drug interactions and developmental differences, will be provided. Students will be divided into small peer-assisted groups and assigned subtopics for team poster-making and discussion.
Students' Activities (Next 80 Minutes):
Step – 01 (Next 40 Minutes): Students will collaboratively analyze critical reading materials related to pediatric pharmacokinetics. Peer leaders will guide discussions on age-specific ADME characteristics. Each team will extract key points, draft summaries, and link concepts to real-world pediatric case scenarios.
Step – 02 (Next 40 Minutes): Each group will create a visual poster presenting their assigned theme—ADME phases, or specific response factors like genetic variability and disease interaction. Posters must include pediatric relevance and illustrations. A gallery walk will allow cross-group feedback and informal peer teaching.
Assessment Methods (Final 20 Minutes):Teacher will assess student performance through submitted critical reading papers and poster quality, focusing on conceptual clarity, communication skills, and pediatric relevance. Peer review will capture the effectiveness of collaboration and individual contributions. Each team will give a 2-minute summary presentation of their findings.

Practical Training 21.3 : Symposium on Fundamentals of Pediatric Pharmacology

Total Duration of the Activities: 2 Hours
This symposium-based session introduces students to the essential principles and clinical relevance of pediatric pharmacology. Participants will explore drug origin, composition, pharmacokinetics, pharmacodynamics, and the importance of pharmacology in child healthcare. Key branches and the factors affecting drug response in children will be discussed through peer-led presentations and interactive dialogue.
Instructions to Students (First 20 Minutes): Teacher will divide students into five groups, each assigned one of the core themes: scope of pharmacology, pediatric pharmacological importance, pharmacological branches, drug processes in children, and influencing factors. Each group will prepare a short symposium presentation with references, charts, and clinical relevance examples.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes):Groups will deliver 5–7-minute presentations summarizing their assigned topics. Each presentation will include a definition, scope, clinical examples (e.g., age-based dosage adjustment), and key takeaway messages relevant to pediatric care.
Step – 02 (Next 40 Minutes):An interactive Q&A session will follow, allowing peer groups to raise questions and add clinical inputs. Teacher will facilitate clarification and synthesis. Students will also complete a peer feedback form for each group, promoting reflection and constructive learning.
Assessment Methods (Final 20 Minutes):Teacher will assess each group based on presentation quality, accuracy, relevance, and communication. An oral viva will be

conducted for selected students to test individual comprehension. Peer feedback will be collected and considered for formative assessment.

Practical Training 21.4 : Symposium on Herbomineral and Animal Products in Pediatric Siddha Care

Total Duration of the Activities: 2 Hours
This 3-hour symposium will explore the use of herbal, mineral, and animal products in pediatric Siddha care. Students will delve into the diversity of ingredients, preparation techniques, and therapeutic benefits for various pediatric conditions. Through presentations, case studies, and journal club discussions, students will critically evaluate the applications and efficacy of these formulations in pediatric healthcare.
Instructions to Students (First 20 Minutes): The teacher will introduce the session, covering the key topics of herbomineral and animal products in pediatric Siddha care. Students will be divided into groups, each assigned a specific topic such as the diversity of ingredients, therapeutic classifications, or case studies on the efficacy of formulations. The teacher will guide the students on how to research their topics, ensuring they understand the importance of ingredient diversity, safety protocols, and dosage designs.
Students activities (Next 80 Mins)
Step 01 (First 40 Minutes): Students will research their assigned topics, focusing on the role of herbomineral and animal products in pediatric Siddha care, including their importance in growth promotion, immune support, and therapeutic applications. They will explore therapeutic classifications (digestive, respiratory, immune, neurodevelopmental) and review case studies, gathering information from research papers and databases to prepare a detailed presentation.
Step 02 (Next 40 Minutes): Students will present their research findings to the class. Each group will present their topic, highlighting the therapeutic benefits, preparation techniques, and pediatric applications of herbomineral and animal products. Following each presentation, a peer discussion will take place, where students will ask questions, critique the presentation, and discuss real-world applications of the findings. The teacher will guide the discussion to ensure that key points are thoroughly covered.
Assessment (Final 20 Minutes): The teacher will assess each presentation based on clarity, depth of analysis, and understanding of the topic. Peer assessments will be conducted where students evaluate each other’s presentations, focusing on the quality of information, engagement, and the ability to answer questions. The teacher will provide feedback on each group’s presentation and the accuracy of the content. Students will also receive constructive feedback on their participation in the journal club discussion and their ability to critically evaluate the content.

Practical Training 21.5 : Focused Recitation and Tutorial on System-Based Pediatric Pharmacology

Total Duration of the Activity: 2 Hours
This session aims to strengthen understanding of system-based pediatric pharmacology through guided recitation and personalized tutorials. Five key domains—neonatal, neuro, cardiovascular, respiratory, and gastrointestinal pharmacology—will be explored. Students will recite dosage principles, mechanisms, and safety protocols to reinforce retention. Tutorials will facilitate clinical reasoning using structured case prompts. Safety and age-specific pharmacokinetics are emphasized throughout.
Instructions to Students (First 20 Minutes): Teacher will outline the scope of pediatric system-wise pharmacology, explain the importance of understanding drug metabolism variations in children, and assign students to five subgroups. Each group will focus on one topic area (e.g., Neuropharmacology), prepare brief oral recitations, and

participate in targeted tutorials guided by case-based prompts.
Students' Activities (Next 80 Minutes):
Step – 01 (Next 40 Minutes): In small groups, students will take turns orally reciting drug names, mechanisms, indications, dosages, and safety guidelines under each assigned pharmacology domain. This recitation reinforces memory and builds verbal fluency on clinical drug knowledge.
Step – 02 (Next 40 Minutes): Students will engage in focused tutorials guided by the teacher. Each group will analyze a simulated pediatric case (e.g., a neonate with GERD, a child with asthma), identify appropriate pharmacologic interventions, and explain drug choices using pharmacodynamic principles.
Assessment Methods (Final 20 Minutes): Teacher will conduct a short Practical Viva to assess depth of understanding and correct drug application in clinical pediatric scenarios. An Online Quiz with MCQs and short answers will test retention and accuracy across the five pharmacological systems discussed.

Practical Training 21.6 : System-Based Pediatric Pharmacology: Clinical and Research Perspectives

Total Duration of the Activity: 2 Hours
This session helps students deepen their understanding of pediatric pharmacology across five key systems: neonatal, neurological, cardiovascular, respiratory, and gastrointestinal. Students will engage in guided literature reviews and focused discussions. They will develop system-specific pharmacology insights, emphasizing dosage adaptations, organ immaturity, safety protocols, and pharmacokinetics. Students will prepare mini-presentations and case study write-ups on real-world pediatric scenarios.
Instructions to Students (First 20 Minutes):Teacher will introduce the five domains of pediatric pharmacology and assign small groups. Each group will visit the library (physical or digital) to retrieve scientific articles, textbook chapters, or classical references on their assigned system. Students should note clinical applications, safety considerations, and age-specific modifications in drug use.
Students' Activities (Next 80 Minutes):
Step – 01 (Next 40 Minutes): Each group will study and extract key pharmacological information relevant to their assigned system. Findings will include common pediatric drugs, their mechanisms, dose adjustments, metabolism patterns, and toxicity risks. The discussion will follow within the group to interpret this information for real clinical settings.
Step – 02 (Next 40 Minutes): Groups will prepare and deliver short presentations summarizing their findings. In parallel, each student will write a short theory case study (1–2 paragraphs) based on a simulated case (e.g., a neonate on antibiotics or a child with asthma), demonstrating pharmacologic decision-making.
Assessment Methods (Final 20 Minutes): Teacher will assess each group's presentation using rubrics for content clarity, organization, and pharmacology accuracy. Theory case studies will be reviewed for depth of analysis, logical reasoning, and application of pharmacologic principles in pediatric care. Feedback will be given to support clinical and academic growth.

Practical Training 21.7 : Preparation of *Siddha* Pediatric Medicines for Common Ailments

Total Duration of the Activities: 2 Hours
This practical involves preparing Siddha pediatric formulations for common ailments like fever, cough, cold, and digestive issues. Students will follow classical *Siddha* methods to create powders, syrups, and oils, ensuring accurate measurements and proper therapeutic effects. The focus is on understanding dosage, safety, and clinical

relevance.
Instructions to Students (First 30 Minutes): The teacher will introduce common pediatric ailments and the corresponding *Siddha* formulations. Students will be shown step-by-step demonstrations on preparing each formulation, including the selection of ingredients, preparation techniques, and therapeutic benefits. Emphasis will be on accuracy, consistency, and ensuring formulations meet clinical standards.
Students' Activities (Next 60 Minutes)
Step 01(First 30 Minutes): Students will begin preparing their assigned *Siddha formulations* for fever, cough, cold, or digestive issues under teacher supervision. They will follow the prescribed methodology for ingredient measurement and formulation preparation. The focus will be on applying *Siddha* therapeutic principles, ensuring the correct consistency and form of each product.
Step 02 (Next 30 Minutes): Students will complete the preparation of the formulations, ensuring they meet the proper consistency (powder, syrup, or oil). They will organize their finished products, preparing them for presentation. Students will focus on the therapeutic value of each formulation and reflect on challenges faced during the preparation process.
Assessment (Final 30 Minutes):The teacher will assess the formulations for accuracy, consistency, and quality. Students will present their formulations, explaining the choice of ingredients and their therapeutic benefits. The viva will assess their understanding of formulation effectiveness, dosage safety, and how the remedy addresses specific pediatric symptoms in clinical practice.

Practical Training 21.8 : Debate and Discussion on *Siddha* Medicines for Pediatric Developmental Disorders

Total Duration of the Activities: 2 Hours
This practical session involves engaging students in a debate and discussion regarding the role of *Siddha* medicines in managing pediatric developmental disorders like Autism and Attention-Deficit/Hyperactivity Disorder (ADHD). The students will explore the scientific basis, therapeutic effectiveness, and clinical application of *Siddha medicines* for cognitive enhancement and neurodevelopmental regulation, based on available literature and practical knowledge.
Instructions to Students (First 20 Minutes): The teacher will introduce the topic of *Siddha medicines* for Autism and Attention-Deficit/Hyperactivity Disorder (ADHD). They will provide an overview of common *Siddha* formulations used for cognitive enhancement and neurodevelopmental support. Students will be divided into two groups: one supporting the use of *Siddha medicines* and the other questioning their effectiveness in modern pediatric care. Each group will research and prepare arguments for the debate.
Students activities
Step 01 (First 40 Minutes): The debate will begin with each group presenting their arguments regarding the use of *Siddha* medicines for pediatric developmental disorders. One group will support their use for cognitive enhancement, while the other will focus on critical viewpoints, questioning their scientific validity and effectiveness in modern medicine. Students will engage in structured dialogue, using evidence from literature and clinical knowledge.
Step 02 (Next 40 Minutes): Following the debate, the teacher will facilitate a discussion in which both groups can respond to each other's arguments. Students will be encouraged to critically analyze the opposing viewpoints, using evidence and clinical reasoning to justify their positions. The discussion will also address any challenges faced in applying *Siddha* treatments to developmental disorders in pediatric care.
Assessment (Final 20 Minutes): The teacher will assess each group's argument for clarity, evidence, and engagement. Peer assessment will be used to evaluate the quality

of each participant's contributions to the debate and discussion. The viva will focus on understanding each student's rationale, their knowledge of *Siddha treatments*, and how they apply it to pediatric developmental disorders like Autism and Attention-Deficit/Hyperactivity Disorder (ADHD).

Practical Training 21.9 : Preparation of Herbal, Mineral, and Animal Products in *Siddha* Pediatrics

Total Duration of the Activities: 2 Hours
This practical session focuses on preparing herbal, mineral, and animal products used in *Siddha* pediatrics. Students will explore the diversity of ingredients, the foundation of pediatric formulations, and how traditional materia medica targets specific health concerns. The session includes ingredient identification, preparation of formulations, and discussion on therapeutic applications.
Instructions to Students (First 20 Minutes): The teacher will introduce the session, explaining the significance of herbal, mineral, and animal products in pediatric *Siddha* formulations. The teacher will describe the properties of each type of ingredient and its role in treating specific pediatric health concerns. Students will be shown the preparation steps for a selected herbal, mineral, or animal-based formulation used in treating common pediatric issues.
Students activities
Step 01 (First 40 Minutes): Students will begin preparing a selected *Siddha* formulation, either herbal, mineral, or animal-based, under teacher supervision. The teacher will guide students through the process of ingredient preparation, including grinding, mixing, or decocting, depending on the formulation. Students will ensure that they follow the proper techniques and measurements for pediatric dosages, emphasizing safety and efficacy.
Step 02 (Next 40 Minutes): Students will continue their preparation, ensuring the formulation achieves the correct consistency and form (powder, syrup, oil, or decoction). After completing the preparation, students will organize their products for demonstration and presentation. Students will prepare to explain the health concerns targeted by their formulation, discussing how the chosen ingredients address specific pediatric ailments such as digestive disorders, respiratory issues, or developmental concerns.
Step 03 (Final 20 Minutes): The teacher will assess the final formulations for accuracy, consistency, and quality. Students will present their completed formulations, explaining the role of each ingredient, its therapeutic effects, and its specific application to pediatric care. The viva will involve questions on the properties of the ingredients, their safety for pediatric use, and their effectiveness in treating the targeted health concerns.
Assessment (Final assesment 20 minutes): Students will be assessed using OSPE for formulation accuracy and technique. Practical Viva will test understanding of ingredient properties, safety, and pediatric relevance. Presentations will evaluate communication skills, clarity in explaining therapeutic applications, and formulation rationale. Teacher will score performance based on standard criteria of quality, knowledge, and explanation.

Practical Training 21.10 : Clinical Presentation of Case Studies on Herbomineral Formulations in Pediatric Care

Total Duration of the Activities: 2 Hours
This practical session focuses on the clinical presentation of case studies involving herbomineral formulations in pediatric care. Students will present successful case studies of pediatric treatments, documenting clinical outcomes and the efficacy of various herbomineral formulations. The session will emphasize understanding the therapeutic benefits of these formulations through real-life examples.
Instructions to Students (First 20 Minutes): The teacher will provide an introduction to herbomineral formulations in pediatric care, discussing their therapeutic significance.

The teacher will guide students on how to document clinical outcomes, focusing on the success stories and efficacy of these treatments. Students will be instructed to prepare case studies of pediatric patients treated with herbomineral formulations, documenting treatment protocols and results.
Step 01 (First 40 Minutes): Students will select and research case studies that showcase the successful use of herbomineral formulations in pediatric treatments. They will document clinical outcomes, detailing the formulations used, the health concerns addressed, and the results achieved. Each student will work on compiling and structuring their case study for presentation, focusing on evidence-based results and clear documentation.
Step 02 (Next 40 Minutes): Students will present their case studies to the class, highlighting the formulation used, its therapeutic benefits, and the documented clinical outcomes. They will explain how the herbomineral formulations addressed specific pediatric health issues, such as digestive problems, respiratory conditions, or developmental disorders. The focus will be on demonstrating the clinical efficacy and safety of these treatments in pediatric care.
Step 03 (Final 20 Minutes): The teacher will assess the students' case study presentations, focusing on the clarity of documentation, the logical structure of the presented case, and the understanding of the herbomineral formulations' efficacy. Assessment will also be based on the students' ability to critically analyze the outcomes and link them to relevant clinical applications. Peer and teacher feedback will be provided to evaluate the depth of understanding.
Assessment (20 minutes): Students will be evaluated through case-based assessment focusing on clinical documentation and formulation relevance. Practical viva will test their understanding of treatment rationale, outcome interpretation, and herbomineral efficacy. Presentations will assess clarity, therapeutic linkage, and communication skills. Teacher will use structured rubrics with peer feedback for comprehensive evaluation.

Experiential learning Activity

Experiential-Learning 21.1 : OTC Label Analysis for Pediatric Safety and Compliance

Total Duration of the Activities: 3 hours
Students will examine real-world OTC medication labels to extract and analyze pharmacokinetic (PK) and pharmacodynamic (PD) details relevant to pediatric patients. They will identify dosage, absorption, metabolism, contraindications, and safety warnings, especially those applicable to infants and young children. The session encourages discussion on labeling gaps and risks associated with pediatric self-medication, followed by peer feedback on improving label safety and clarity.
Instructions to Students (First 20 Minutes): Carefully read each OTC label provided by the teacher. Focus on dosage instructions, warnings, age-specific contraindications, and potential side effects in children. Identify missing pediatric information or vague statements that may lead to misinterpretation and pose safety risks.
Students' Activities
Step – 01 (70 Minutes): Individually or in groups, extract and analyze PK/PD data from each label. Assess whether pediatric guidelines are clear and complete. List any concerns or ambiguities and flag potential issues that could result in adverse drug reactions in children.
Step – 02 (70 Minutes): Prepare a structured summary report highlighting your analysis. Include specific recommendations for improving pediatric label clarity, dosage accuracy, and risk communication. Participate in a peer discussion to compare findings and collaboratively identify best labeling practices.
Assessment (Final 20 Minutes): Teacher will assess reports using a checklist focused on completeness of analysis, relevance of PK/PD interpretation, and clarity of recommendations. Peer feedback will be used to evaluate critical thinking, presentation quality, and collaboration during group discussions.

Experiential-Learning 21.2 : Weight-Based Drug Dosing and Pediatric Safety Simulation

Total Duration of the Activities: 3 Hours

Students will analyze mock pediatric clinical scenarios involving weight-based drug prescriptions. Using standard mg/kg formulas, they will calculate accurate dosages for common pediatric medications while considering maximum allowable doses, dosing intervals, and appropriate dilutions. Emphasis will be placed on safety practices, including double-checking, rounding rules, and understanding dose adjustments in varying clinical contexts. Peer discussion and feedback will reinforce learning and minimize medication error risks.

Instructions to Students (First 30 Minutes): Carefully review the mock clinical scenarios, which include patient age, weight, and prescribed medications. Calculate drug dosages using standard mg/kg formulas. Check maximum safe dosages and dilution requirements. Be prepared to explain rounding choices and necessary clinical dose adjustments.

Students' Activities

Step – 01(60 Minutes): Individually or in small teams, calculate dosages for each provided case. Note formula usage, rounding protocols, and any red flags or overdose concerns. Identify safety checkpoints that ensure correct pediatric dosing.

Step – 02 (60 Minutes): Present your dosage calculations to your peers and justify your decisions. Discuss potential risks from incorrect dosages and how to avoid them through verification and cross-checking. Share strategies for minimizing calculation errors and enhancing pediatric medication safety.

Assessment (Final 30 Minutes):Teacher will assess each student's dose calculations, rounding logic, and safety justification using a structured checklist. Peer evaluations will focus on clarity of explanation, collaboration, and risk awareness in presented cases.

Experiential-Learning 21.3 : Personalized Pediatric Drug Selection and Dosing Workshop

Total Duration of the Activities: 4 Hours

Students will receive mock pediatric patient profiles with conditions like asthma, infections, and fever. Profiles will include age, weight, comorbidities, allergies, and lab data. Using pharmacological references, students will identify appropriate drugs, determine personalized doses, and evaluate interactions or contraindications. The activity emphasizes evidence-based prescribing, safety, and clinical reasoning. Final plans are discussed, refined, and justified through peer exchange and teacher-guided critique.

Instructions to Students (First 30 Minutes): Review your assigned case profile. Identify diagnosis, weight-based needs, allergy history, and comorbidities. Use standard pharmacology texts to select the appropriate drug, determine the safest and most effective dose, and outline a complete prescription plan. Prepare to explain each decision.

Students' Activities

Step – 01 (60 Minutes): Draft a detailed treatment plan including drug selection, dosage, route, timing, and therapy duration. Justify decisions with pharmacological reasoning and clinical context. Account for drug interactions and age-specific safety concerns.

Step – 02 (60 Minutes): Present your treatment plan to peers, discussing rationale for medication choices and any dose modifications. Highlight clinical guidelines or safety data that support your decisions. Invite questions and peer feedback.

Step – 03 (60 Minutes): Refine your plan based on peer input and clinical logic. Participate in a collaborative discussion on variations in prescribing strategies. Document your learning in a reflection report, noting how clinical reasoning improved your decision-making.

Assessment (Final 30 Minutes): Teacher will assess students' treatment plans using a structured checklist focusing on drug appropriateness, dosing accuracy, safety considerations, and clarity of justification. Peer feedback and reflection reports will also inform the final evaluation.

Experiential-Learning 21.4 : Identification and Application of Pediatric Herbal Plants

Total Duration of the Activities: 4 Hours
Students will participate in a supervised field visit to a herbal garden guided by a *Siddha* practitioner. They will identify pediatric-use medicinal plants such as *Thuthuvalai, Vasambu, and Keezhanelli,* learning their botanical details, parts used, and preparation methods. Emphasis will be placed on age-appropriate indications, dosage, contraindications, and formulation safety. Students will document findings, engage in group discussions, and present their understanding of practical pediatric *Siddha* herb usage.
Instructions to Students (First 30 Minutes): During the herbal garden visit, take detailed notes and (with permission) photographs of plants discussed. Record each plant's name, part used, pediatric indication, preparation method, and dosage form. Pay attention to contraindications or precautions specific to children.
Students' Activities
Step – 01 (60 Minutes): Individually classify and document all medicinal plants identified during the tour. Note botanical names, therapeutic roles in pediatrics (e.g., for cough, fever, skin conditions), and preparation methods suitable for children.
Step – 02 (60 Minutes): In small groups, discuss preparation techniques *(e.g., kashayam, chooranam),* safety measures, age-specific dosage, and contraindications. Compare practices, validate with classical references, and note differences across formulations.
Step – 03 (60 Minutes): Present your group's findings, explaining each plant's practical role in pediatric care. Highlight dosage decisions and any case-based use if known. Reflect on the relevance of herbal knowledge in preventive and curative *Siddha* pediatric practice.
Assessment (Final 30 Minutes): Teacher will assess students using a checklist that includes plant identification accuracy, understanding of therapeutic indications, dosage safety, and clarity during the presentation. Peer feedback will supplement the final assessment.

Experiential-Learning 21.5 : Field Study on *Siddha* Pediatric Clinical Practices

Total Duration of the Activities: 4 Hours
Students will participate in a field study at a *Siddha* clinic or community health center offering pediatric care. They will observe real-time *Siddha* treatments for various pediatric ailments, such as respiratory, digestive, and skin issues. Students will also collect caregiver feedback through informal interviews and observe treatment outcomes. Ethical considerations, including confidentiality and respectful observation, will be emphasized. The session culminates in a compiled qualitative report highlighting both effective practices and challenges observed.
Instructions to Students (First 30 Minutes): Before the visit, students will receive a briefing on ethical conduct, consent protocols, and respectful engagement with caregivers and practitioners. During the visit, observe treatment procedures, note clinical responses, and—only with permission—conduct brief interviews with caregivers about their satisfaction and experiences.
Students' Activities

Step – 01 (60 Minutes): Observe pediatric *Siddha* treatments being administered. Record procedural details such as type of therapy, duration, frequency, and immediate reactions in children. Note practitioner-patient interactions and setting-based adaptations.
Step – 02 (60 Minutes): Conduct informal, consent-based conversations with caregivers to gather qualitative feedback. Ask about perceived effectiveness, challenges during treatment, and overall satisfaction with *Siddha* pediatric care. Record responses with confidentiality.
Step – 03 (60 Minutes): In teams, analyze the observations and feedback. Compile a reflective report summarizing key treatment methods, caregiver experiences, outcomes, and psychosocial impacts. Highlight both strengths and areas needing improvement in *Siddha* pediatric practice.
Assessment (Final 30 Minutes): Teacher will assess students based on the quality and depth of their reflective reports, accuracy of observations, ethical conduct, and active participation in caregiver interaction. Peer feedback and a brief Q&A will supplement the final evaluation.

Experiential-Learning 21.6 : Laboratory Quality Control of Pediatric *Siddha* Formulations

Total Duration of the Activities: 4 Hours
This hands-on laboratory session focuses on quality control testing of *Siddha* formulations used in pediatric care. Students will be trained to assess physical characteristics (e.g., color, texture, pH), analyze chemical composition (presence of actives, contaminants), and perform microbiological evaluations (bacterial load, sterility). Emphasis will be on accuracy, safety, and matching results with accepted pediatric safety standards. Students will document and interpret their findings, highlighting implications for formulation quality, safety, and regulatory compliance.
Instructions to Students (First 30 Minutes): Faculty will demonstrate step-by-step QC procedures and emphasize hygiene, sample handling, safety measures, and accurate data recording. Students must wear protective gear and strictly adhere to SOPs. Each team will be given a Quality Control Checklist for systematic documentation throughout the activity.
Students' Activities
Step – 01 (60 Minutes): Students will test physical properties of assigned *Siddha* pediatric formulations. Parameters include pH, color, odor, consistency, and visual purity. All findings will be recorded in the QC checklist provided, and any abnormal results must be noted for review.
Step – 02 (60 Minutes): Students will conduct chemical analysis using predefined methods to identify key active ingredients and screen for potential contaminants. They will follow standard procedures under supervision and compare outcomes against official pharmacopeial references.
Step – 03 (60 Minutes): Microbiological testing will be performed to check sterility and measure bacterial/fungal load. Using simple culture techniques or rapid test kits, students will interpret growth results and assess safety for pediatric use. Findings will be tabulated for class discussion.
Assessment (Final 30 Minutes): Teacher will assess each student based on accurate execution of procedures, completeness of documentation, and interpretation of results. The Quality Control Checklist, observation notes, and safety adherence will contribute to the final evaluation. Peer feedback and a short reflective discussion will conclude the session.

Experiential-Learning 21.7 : Experimental Validation of *Siddha* Pediatric Formulation

Total Duration of the Activities: 4 Hours

This hands-on session involves selecting a *Siddha* pediatric formulation, studying traditional texts and modern literature, and performing simple experiments to validate its therapeutic claims. Students will engage in ingredient verification, preparation process assessment, or antimicrobial/observational studies. Focus is placed on ethical research practices, accurate documentation, and scientific interpretation. Each team will compile their findings into a structured report and present them for faculty and peer review.
Instructions to Students (First 30 Minutes): Review all safety and ethical protocols before beginning. Select one pediatric *Siddha* formulation with known therapeutic use. Collect references from classical *Siddha texts* and modern pharmacological research. Plan an experiment using available lab methods—ingredient identification, physical/chemical testing, or basic antimicrobial testing. Faculty will assist in aligning your approach to acceptable scientific methods.
Students' Activities
Step – 01 (60 Minutes): Conduct an in-depth literature review of the selected formulation, noting ingredients, preparation methods, therapeutic use, and references from both *Siddha* and modern texts. Design a basic experimental plan to test key therapeutic or formulation claims.
Step – 02 (60 Minutes): Execute the planned experiments using lab equipment provided. This may include testing for pH, solubility, organoleptic properties, or antimicrobial activity. Record all results clearly, noting any safety or ethical considerations observed during testing.
Step – 03 (60 Minutes): Compile your results into a structured report outlining your method, data, analysis, and conclusion. Prepare a presentation explaining the traditional claims, experimental outcomes, and how your findings support or challenge the expected efficacy of the pediatric *Siddha* formulation.
Assessment (Final 30 Minutes): Teacher will assess accuracy and depth of literature analysis, experimental clarity, safety adherence, quality of documentation, and presentation skills. Evaluation will be based on report submission, peer engagement, and the scientific reasoning demonstrated in the group presentation.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - 25 Marks - ABQ/ LAQ/SAQ & Section – B. 25-marks. This modular assessment evaluates students' ability to perform, demonstrate, and explain core Siddha pediatric pharmaceutical and therapeutic skills through a structured OSPE format. Each student will undergo direct observation while performing Siddha pediatric formulation-related tasks or clinical application demonstrations, followed by brief questioning to assess conceptual understanding, safety, and formulation rationale. Instructions to Students: Students will rotate through OSPE stations focusing on Siddha pediatric pharmacological skills. Tasks include demonstrating classical medicine preparation, identifying herbal/mineral ingredients, explaining pediatric dosage adjustments, or managing emergency scenarios. Students must perform under observation and answer related viva questions, justifying their method using Siddha concepts and pediatric safety standards. Instructions to Teachers : Teachers must observe student performance at each OSPE station, using structured checklists. Assess the accuracy of *Siddha* drug preparation, ingredient identification, dosage calculation, or emergency response demonstration. Ask brief oral questions to verify understanding of safety, therapeutic rationale, and classical validation. Ensure emphasis on child-specific adaptation and practical skills.	4

Mark Distribution: Marks are distributed as follows: Practical skill demonstration including formulation/preparation or procedural task carries 10 marks. Conceptual clarity and scientific justification through viva responses are allotted 7 marks. Accuracy in identifying ingredients and applying *Siddha* principles receives 5 marks. Safety compliance and confidence in pediatric application account for 3 marks.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).

Module 22 : ?????????????? ??????? ??????????? ??????? ???????? ??????? Kuzhanthaigalukkaana Marunthu Seimuraigal Mattrum Sikitchai Muraigal (Siddha Pharmaceutics and Therapeutics for Pediatrics

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

Identify internal Siddha formulations used for pediatric systemic and neurological disorders.
Describe external Siddha formulations for skin, eye, ear, and musculoskeletal conditions.
Apply appropriate Siddha treatment plans with safe pediatric dosing guidelines.
Demonstrate preparation techniques of key Siddha pediatric formulations.
Discuss integration of Siddha and modern approaches in pediatric care.
Explain safety, standardization, and GMP practices for pediatric Siddha medicines.

M 22 Unit 1 ?????????????? ????? ??? ?????????? - Kuzhanthaikalukkana Siddha Ul Marunthugal -Internal Siddha Formulations for Pediatrics

22.1.1 Siddha Formulations for Pediatric Systemic Diseases – Internal medicines, immune-boosting actions, systemic disease control, complication prevention, holistic child care.
22.1.2 Siddha Formulations for Pediatric Neurological Disorders – Cognitive enhancement, epilepsy support, developmental delay remedies, neurological function regulation.
22.1.3 Siddha Formulations for Pediatric Skin Disorders – Eczema relief, rash treatment, dermatitis correction, internal balancing, dermatological health restoration.
22.1.4 Siddha Formulations for Pediatric Developmental Disorders – Growth promotion, neuro-motor support, cognitive stimulation, child development

enhancement.
22.1.5 Safety and Dosing Guidelines for Internal Siddha Formulations – Age-specific dosage, toxicity prevention, safe administration protocols, pediatric therapeutic efficacy.

References: 91,119

3A	3B	3C	3D	3E	3F	3G
CO1,CO5,CO7 ,CO8	Describe the internal sidhha formulations for pediatric disorders.	1	Lecture	CC	Knows-how	L,PL,DA
CO1,CO5,CO7 ,CO8	Identify the importance of safety and dosing guidelines.	1	Lecture	CAP	Know	L,SDL
CO2,CO3,CO4	Document and analyze *Siddha* formulations for systemic and neurological pediatric disorders.	3	Practical Training 22.1	CAN	Shows-how	JC
CO2,CO3,CO4	Understand and apply safety and dosing guidelines for *internal Siddha formulations* in pediatric care.	2	Practical Training 22.2	PSY-GUD	Shows-how	D,W
CO1,CO3,CO4	Prepare *Siddha internal formulations* for systemic and neurological care	3	Experiential-Learning 22.1	PSY-MEC	Does	D,TBL,W ,PL
CO4,CO5,CO6	Prepare and administer *Siddha formulations* for pediatric care	4	Experiential-Learning 22.2	PSY-MEC	Does	PL,D,TP W,W,SD L

M 22 Unit 2 ?????????????? ????? ???? ?????????? - Kuzhanthaikalukkana Siddha Veli Marunthugal - External Siddha Formulations for Pediatrics

22.2.1 External Formulations for Pediatric Skin Disorders – Herbal oils, pastes, powders, eczema and rash relief, dermatological soothing and healing.
22.2.2 External Formulations for Pediatric Eye & Ear Disorders – Topical applications, medicated oils, anti-inflammatory treatments, gentle eye and ear care.
22.2.3 External Formulations for Pediatric Orthopedic and Musculoskeletal Disorders – Bone and muscle pain relief, joint support compresses, fracture

management, medicated oil therapy.
22.2.4 Safety and Efficacy of External Formulations – Pediatric formulation safety, side effect minimization, external remedy effectiveness, child-friendly application assurance.
22.2.5 Application Techniques for External Siddha Remedies – Oil and poultice techniques, optimal absorption methods, dosage precision, pediatric therapeutic delivery.

References: 111,114,124

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Discuss the external sidhha formulations for pediatric musculoskeletal disorders.	1	Lecture	CC	Knows-how	PL,LS,L &GD
CO2,CO5,CO7	Discuss how oils ,pastes, and powders are formulated and applied to treat pediatric conditions.	1	Lecture	CC	Knows-how	L_VC,PL
CO2,CO5,CO7	Apply external sidhha formulations for pediatric skin and Ear, Nose, and Throat (ENT) disorders.	1	Lecture	CC	Knows-how	DIS,IBL, BL
CO2,CO3,CO4	Prepare external *Siddha formulations* for pediatric skin, eye, ear, and musculoskeletal disorders.	2	Practical Training 22.3	PSY-MEC	Shows-how	D,CBL
CO2,CO5,CO7	Evaluate the safety, efficacy, and child-friendly application of *external formulations* for pediatric care.	2	Practical Training 22.4	CE	Shows-how	PL,SY,DIS
CO3,CO5,CO6	Apply external *Siddha* remedies for pediatric sensory and skin care	3	Experiential-Learning 22.3	PSY-GUD	Does	PL,D,W
CO1,CO3,CO5	Demonstrate preparation and application of pediatric external therapies	4	Experiential-Learning 22.4	PSY-MEC	Does	D,PL,DIS,W

M 22 Unit 3 ?????????????????????? ???? ???????????? ???????? ?????????? – Kuzhanthaikalukkundagum Podhu Noigalukkana Maruthuva Vazhimuraigal -Siddha Treatment Protocol for Common Pediatric Conditions

22.3.1 Siddha Management of Common Pediatric Ailments – Respiratory and digestive care, child-specific remedies, herbal protocols, traditional therapeutic frameworks.
22.3.2 Siddha Management of Systemic Pediatric Conditions – Asthma and diabetes control, holistic formulations, long-term systemic balance, Siddha lifestyle integration.
22.3.3 Case Studies of Siddha Treatment Success in Pediatric Diseases – Clinical outcome review, traditional therapy effectiveness, practical insights, evidence-based applications.
22.3.4 Integrative Approaches with Modern Medicine – Dual-system care coordination, Siddha-modern synergy, chronic and acute condition integration, complementary treatment protocols.
22.3.5 Pediatric Treatment Plans and Dosing Guidelines – Siddha prescription planning, dosage precision, child-specific formulations, structured therapeutic follow-up.

References: 91,96,119,133

3A	3B	3C	3D	3E	3F	3G
CO1,CO7,CO8	Analyze sidhha treatment protocols for managing common pediatric ailments.	1	Lecture	CAN	Knows-how	DA,L&GD,JC
CO1,CO7,CO8	Analyze sidhha treatment protocol for managing pediatric systemic conditions.	1	Lecture	CAN	Knows-how	ML,LS,DA
CO1,CO7,CO8	Evaluate the integration of sidhha practices with modern medical approaches.	1	Lecture	CAN	Know	L,IBL,DIS
CO2,CO3,CO4	Evaluate integrative approaches combining *Siddha medicine* and modern healthcare practices.	3	Practical Training 22.5	CAN	Shows-how	JC,TBL
CO2,CO3,CO4	Evaluate and apply recent advances in pediatric treatment plans and dosing guidelines.	3	Practical Training 22.6	CAP	Shows-how	RP,D,BL
CO1,CO3,CO5	Apply *Siddha* principles to develop pediatric care protocols	4	Experiential-Learning 22.5	CAP	Does	DIS,CBL,W
CO1,CO3,CO5	Formulate integrative care plan from case-based *Siddha* insights	4	Experiential-	CAP	Does	CBL,W,D

			Learning 22.6			IS

M 22 Unit 4 ?????????????? ????? ?????????? ??????????? – Kuzhanthaikalukkana Siddha Marunthugal Seimuraigal -Practical Preparation of Pediatric Siddha Formulations

22.4.1 Raw Material Selection and Processing – Ingredient sourcing, purification protocols, herbal and mineral quality control, pediatric formulation safety assurance.
22.4.2 Pediatric Siddha Formulations Preparation – *Ilagam, Chooranam, Kudineer preparation,* hands-on formulation guidance, child-friendly dosage calibration.
22.4.3 Standardization and Quality Control – Potency assurance, uniform preparation protocols, formulation stability, pediatric safety validation.
22.4.4 Packaging and Labeling for Pediatric Formulations – Label accuracy, dosage instructions, storage guidelines, formulation integrity maintenance.
22.4.5 Good Manufacturing Practices (GMP) in Pediatric Formulations – GMP adherence, hygiene protocols, production compliance, regulatory alignment for pediatric safety.

References: 25,45,96

3A	3B	3C	3D	3E	3F	3G
CO1,CO6,CO7	Apply knowledge of selecting and processing raw materials used in siddha pediatric formulations.	1	Lecture	CAP	Knows-how	PL,DA
CO1,CO6,CO7	Describe step by step preparation techniques for pediatric medicines.	1	Lecture	CAP	Knows-how	C_L,DIS,Mnt
CO2,CO3,CO4	Evaluate Good Manufacturing Practices (GMP) adherence and quality control in pediatric formulations, focusing on safety and regulatory standards.	3	Practical Training 22.7	CC	Shows-how	SY,PAL
CO2,CO3,CO4	Evaluate and apply raw material sourcing and processing protocols to ensure pediatric formulation safety.	2	Practical Training 22.8	CAP	Shows-how	EDU,ML
CO3,CO5,CO6	Demonstrate pediatric drug preparation with Good Manufacturing Practices (GMP) and safety focus	4	Experiential-Learning 22.7	PSY-MEC	Does	DIS,D,SIM

Practical Training Activity

Practical Training 22.1 : *Siddha Formulations* for Pediatric Systemic Diseases and Neurological Disorders

Total Duration of the Activities: 3 Hours
This practical session involves the exploration of *Siddha formulations* used in treating pediatric systemic diseases and neurological disorders. Students will document clinical outcomes, review case studies, and participate in a Journal Club where they will critically analyze the efficacy of different formulations. Peer learning will facilitate a collaborative understanding of treatment protocols.
Instructions to Students (First 30 Minutes): The teacher will provide an introduction to *Siddha formulations* used in treating pediatric systemic diseases (e.g., fever, infections) and neurological disorders (e.g., epilepsy, developmental delays). Students will be guided on how to document clinical cases and outcomes, focusing on the preparation of these formulations and their effectiveness. The teacher will explain the importance of evidence-based documentation and the role of peer learning.
Students activities
Step 01 (First 60 Minutes): Students will begin by researching *Siddha formulations* used for pediatric systemic and neurological disorders. They will focus on documenting treatment protocols, patient outcomes, and relevant case studies. Each student will be tasked with collecting information from library resources and online databases. They will then compile their findings into a structured document for later presentation.
Step 02 (Next 60 Minutes): Students will participate in a Journal Club discussion, presenting their findings to the group. Each student will briefly summarize the efficacy of the *Siddha formulations* they researched, comparing them with modern treatment practices. During the discussion, students will critique each other's findings, focusing on the strengths and limitations of the case studies. The group will collaboratively assess the therapeutic value of these *Siddha formulations.*
Assesment: (Final 30 Minutes): The teacher will assess the students' presentations based on the quality and clarity of their documented cases, the depth of analysis in the Journal Club discussion, and their ability to critically evaluate the formulation's effectiveness. Peer assessment will also play a role, with students providing feedback on each other's documentation and participation. The teacher will provide individual feedback on each student's contributions to the session.

Practical Training 22.2 : Workshop on Safety and Dosing Guidelines for Internal *Siddha Formulations*

Total Duration of the Activities: 2 Hours
This practical session will provide students with an understanding of the safety and dosing guidelines for *internal Siddha formulations*. The workshop will cover the appropriate use of herbs, minerals, and other components in pediatric *Siddha formulations,* focusing on safety protocols and accurate dosing. Students will engage in hands-on demonstrations to apply the knowledge in practical scenarios.
Instructions to Students (First 20 Minutes): The teacher will introduce the session by explaining the importance of safety and correct dosing in *Siddha formulations,* particularly in pediatric care. Students will be briefed on the different types of *internal Siddha medicines* used in pediatrics and how to calculate and administer appropriate dosages. The teacher will also outline potential risks and safety considerations associated with internal formulations.
Students activities
Step 01 (First 40 Minutes): Students will begin by reviewing key safety guidelines and dosing calculations for *internal Siddha formulations*. They will examine case studies

and analyze the risks of incorrect dosing. Using the guidelines provided, students will work through sample dosing scenarios, calculating appropriate doses for different pediatric age groups based on weight, age, and condition.
Step 02 (Next 40 Minutes): Students will engage in a hands-on demonstration, where they will practice preparing and dosing *internal Siddha formulations* under the teacher's supervision. They will ensure accuracy in measuring and preparing the formulations and will discuss the therapeutic value and potential side effects of each formulation. Emphasis will be on correct dosage, administration techniques, and ensuring pediatric safety.
Assessment (Final 20 Minutes - Step 03): The teacher will assess students through observation of their preparation and dosing of the *internal Siddha formulations*. They will be evaluated on their ability to correctly calculate dosages and apply safety protocols. Students will also present their understanding of dosing guidelines, explaining their reasoning and addressing any potential safety concerns. The practical exam will include a viva to assess their knowledge of safety guidelines and the application of appropriate dosing techniques.

Practical Training 22.3 : Preparation of *External Formulations* for Pediatric Skin, Eye, Ear, and Musculoskeletal Disorders

Total Duration of the Activities: 2 Hours
This practical session focuses on the preparation of external *Siddha formulations* for pediatric skin, eye, ear, and musculoskeletal disorders. Students will explore and prepare herbal oils, pastes, and powders for eczema, rash relief, dermatological soothing, and healing. They will also learn to prepare formulations for pediatric eye, ear, and musculoskeletal disorders, such as medicated oils and compresses, focusing on safety, application methods, and dosage.
Instructions to Students (First 20 Minutes): The teacher will provide an overview of the session, explaining the therapeutic significance of *external Siddha formulations* for pediatric skin, eye, ear, and musculoskeletal disorders. The teacher will demonstrate the preparation of one formulation from each category (e.g., herbal oil for eczema, medicated oil for ear inflammation, or pain relief oil for musculoskeletal disorders). The focus will be on the preparation process, ingredient properties, and ensuring safe and effective application for pediatric use.
Students activities
Step 01 (First 40 Minutes): Students will begin preparing their assigned *external formulations* under the teacher's guidance. They will focus on creating herbal oils or pastes for skin disorders (e.g., eczema or rash relief) or topical oils for pediatric eye or ear disorders. The teacher will guide students in accurately measuring and combining the ingredients, ensuring the correct consistency and potency of the formulations. Students will learn the importance of using gentle, safe ingredients for pediatric applications.
Step 02 (Next 40 Minutes): Students will continue the preparation of their selected formulation, focusing on completing the product with the correct consistency and safety measures. They will then organize their products, ensuring they are ready for presentation. Students will also prepare a brief explanation of their formulation, discussing its therapeutic benefits for treating specific pediatric conditions. Emphasis will be on demonstrating an understanding of ingredient properties and the clinical application of each formulation.
Assessment (Final 20 Minutes - Step 03): The teacher will assess each student's formulation for accuracy, consistency, and adherence to safety protocols. Students will present their finished formulations, explaining the choice of ingredients, their therapeutic benefits, and how they address specific pediatric conditions. A viva will follow, with questions about the preparation process, dosages, and how to apply these formulations in pediatric care. The teacher will assess both the practical skills in formulation and the students' understanding of the therapeutic applications of the products.

Practical Training 22.4 : Symposium on Safety and Efficacy of *External Formulations* for Pediatric Care

Total Duration of the Activities: 2 Hours

This symposium focuses on the safety, efficacy, and application of *external Siddha formulations* for pediatric care. Students will present and discuss various formulations, emphasizing child-friendly practices, side-effect minimization, and the effectiveness of external remedies. The session will include a review of the formulations' safety protocols and their therapeutic outcomes.

Instructions to Students (First 20 Minutes): The teacher will introduce the symposium, explaining the importance of evaluating the safety and efficacy of external formulations in pediatric care. Students will be divided into small groups, each assigned a specific *external formulation (e.g., herbal oils, pastes, or medicated compresses)*. The teacher will guide students on how to assess the *formulation's* safety profile, potential side effects, and effectiveness. Emphasis will be placed on understanding the child-friendly aspects of these formulations.

Step 01 (First 40 Minutes): Each group will research and prepare a presentation on their assigned *external formulation*. They will analyze the safety guidelines, potential side effects, and effectiveness of the formulation in treating pediatric conditions. Students will explore evidence on the formulation's ability to minimize side effects, ensure safety, and provide therapeutic benefits in pediatric care. The groups will prepare their findings and organize their presentations to address the key points in a structured manner.

Step 02 (Next 40 Minutes): Groups will present their findings to the class, explaining the safety and efficacy of their selected *external formulation.* They will discuss how the formulation works to address specific pediatric conditions (e.g., skin disorders, musculoskeletal pain, etc.), its side-effect minimization strategies, and how it ensures child-friendly application. After each presentation, a group discussion will follow, allowing peers to ask questions, provide feedback, and discuss the formulation's overall applicability in real clinical scenarios.

Assessment (Final 20 Minutes): The teacher will assess the group presentations for clarity, depth of analysis, and practical application. Peer assessment will be encouraged, with students providing feedback on each group's research and presentation. The assessment will focus on the group's ability to critically evaluate the formulation's safety profile, its effectiveness in pediatric care, and the methods used to ensure safe, child-friendly application. The teacher will conclude the session by highlighting key takeaways from the discussions and providing feedback.

Practical Training 22.5 : Integrative Approaches with Modern Medicine: A Journal Club and Team-Based Learning Session

Total Duration of the Activities: 3 Hours

This practical session will focus on the integrative approaches that combine *Siddha medicine* with modern medical practices. Students will participate in a Journal Club to critically review scientific papers, engage in peer discussions, and collaborate in teams to analyze real-world case studies. They will also create posters to visually present their findings on integrative healthcare approaches.

Instructions to Students (First 30 Minutes): The teacher will introduce the session, explaining the importance of integrating *Siddha medicine* with modern medical practices to enhance patient care. Students will be introduced to a scientific paper or case study on integrative healthcare approaches. The teacher will provide guidance on how to critically read the paper, identify key concepts, and evaluate the scientific evidence.

Students activities

Step 01 (First 60 Minutes): In the Journal Club format, students will be divided into groups and assigned a scientific paper that discusses an integrative approach to healthcare (e.g., using *Siddha treatments* alongside modern therapies for conditions like asthma, pain management, or mental health). Each group will critically read the paper and analyze its findings, focusing on the efficacy of the integrative approach, the strengths and weaknesses of the study, and its relevance to pediatric care.
Step 02 (Next 60 Minutes): Students will engage in a peer discussion where each group presents their findings from the paper, focusing on the integrative approaches discussed in the article. After each presentation, the other groups will ask questions, offer insights, and discuss the practicality of implementing such approaches in real clinical settings. This discussion will also address any gaps in the paper's scientific evaluation. Each group will then work together on creating a poster that summarizes their discussion and key points about integrative healthcare approaches.
Assessment (Final 30 Minutes): The teacher will assess the presentations for clarity, scientific rigor, and depth of analysis. Peer assessment will be incorporated, allowing students to evaluate each other's contributions during the team discussions. The posters will be evaluated based on their creativity, clarity, and ability to effectively communicate the integrative approach and its scientific evaluation. The teacher will also provide feedback on how the discussion and analysis could be further refined and applied in clinical practice.

Practical Training 22.6 : Recent Advances in Pediatric Treatment Plans and Dosing Guidelines

Total Duration of the Activities: 3 Hours
This 3-hour practical session will explore the latest advancements in pediatric treatment plans and dosing guidelines. The session will integrate blended learning with online resources and in-person demonstrations. Students will engage in digital quizzes and problem-solving puzzles to reinforce their understanding and critical thinking about updated pediatric care protocols.
Instructions to Students (First 30 Minutes): The teacher will introduce the topic of pediatric treatment advancements, emphasizing recent updates in dosing guidelines and treatment plans. Students will be guided on how to access and use online resources such as articles, videos, and case studies. The teacher will demonstrate practical applications of these advancements in clinical scenarios, focusing on the accuracy of dosing and treatment protocols for various pediatric conditions.
Step 01 (First 40 Minutes): Students will engage in blended learning by reviewing online resources provided by the teacher. These will include research papers, videos, and case studies on pediatric treatment plans and new dosing guidelines. Afterward, students will participate in an in-class discussion, summarizing the key points and evaluating how recent advancements can be integrated into clinical pediatric practice.
Step 02 (Next 40 Minutes): Students will complete an online quiz consisting of multiple-choice and short-answer questions to assess their retention and understanding of recent pediatric treatment plans and dosing guidelines. Following the quiz, students will participate in a group puzzle-solving activity, where they will apply their knowledge of updated dosing and treatment protocols to solve case-based problems. The puzzles will encourage critical thinking and knowledge application in pediatric care scenarios.
Step 03 (Final 40 Minutes): After completing the online quiz and puzzle-solving activity, students will reconvene for a group discussion. Each group will present their puzzle solutions, explaining their treatment and dosing decisions. The teacher will provide feedback, guiding the students on how to improve their clinical reasoning and ensure the safe application of updated pediatric treatment plans and dosing guidelines.
Assessment (Final 30 Minutes - Step 04): The teacher will assess students based on their performance in the online quiz and puzzle-solving activity. The quiz will test their knowledge retention of recent advances in pediatric treatment plans, while the puzzle activity will evaluate their critical thinking and ability to apply the learned concepts. The teacher will provide individual and group feedback to enhance their understanding and application of the new treatment protocols in pediatric care.

Practical Training 22.7 : Symposium on Good Manufacturing Practices (GMP) and Quality Control in Pediatric Formulations

Total duration of the Activities: 3 hours
This symposium focuses on GMP and quality control in pediatric formulations. Students will choose topics related to Good Manufacturing Practices (GMP) adherence, standardization, and safety validation. They will present their research, discuss regulatory alignment, and engage in peer interactions. Presentations will focus on safety, potency, and the importance of quality control in pediatric care.
Instructions to Students (First 30 Minutes): The teacher will introduce the session, outlining Good Manufacturing Practices (GMP) adherence, hygiene protocols, and regulatory alignment for pediatric safety. Students will select a topic related to Good Manufacturing Practices (GMP) or quality control. They will be guided to research and prepare a structured presentation that explains their topic's relevance to pediatric formulation safety and standards.
Students' Activities
Step 01 (Next 90 Minutes): Students will research their selected topics, focusing on Good Manufacturing Practices (GMP) adherence, standardization, or potency assurance in pediatric formulations. They will use recent guidelines, research, and case studies to support their findings. Each student will organize their presentation, emphasizing safety, compliance, and the impact of quality control on pediatric health outcomes.
Step 02 (Next 30 Minutes):Each student will present their findings to the group, explaining the key aspects of their topic. After each presentation, students will engage in peer discussions, asking questions and providing feedback on the topic. The teacher will guide the discussions, ensuring clarity and deepening the understanding of pediatric formulation safety.
Assessment (Final 30 Minutes):The teacher will assess students based on their presentation quality, including clarity, depth, and engagement in the peer discussion. Peer assessments will focus on evaluating the contributions of each student to the discussions. Constructive feedback will be provided, highlighting strengths and areas for improvement in both content and delivery.

Practical Training 22.8 : Raw Material Selection and Processing for Pediatric Formulations

Total Duration of the Activities: 2 Hours
This 2-hour session focuses on raw material selection and processing for pediatric formulations. Students will explore the process of sourcing ingredients, ensuring quality control, and following purification protocols. Mobile learning tools and edutainment methods will enhance understanding of herbal and mineral quality control and pediatric safety assurance.
Instructions to Students (First 30 Minutes): The teacher will introduce the importance of raw material sourcing and processing in pediatric formulations. Students will be briefed on ingredient sourcing, purification techniques, and the significance of quality control in ensuring pediatric safety. The teacher will demonstrate how to use mobile learning tools and interactive media to explore these concepts.
Students activities (Next 60 mins)
Step 01 (First 30 Minutes): Students will engage in mobile learning activities, using digital resources like videos, games, and interactive modules to explore herbal and mineral quality control processes. They will review sourcing, purification, and safety protocols for pediatric formulations. The focus will be on understanding the critical steps in ensuring ingredient quality and safety for children.

Step 02 (Next 30 Minutes): Students will complete a theory open-book test, where they will apply their learning from mobile tools and edutainment activities. The test will assess their ability to analyze and apply raw material sourcing, purification, and quality control procedures in pediatric formulations. They will be tasked with evaluating case studies and determining the appropriate safety measures.
Assessment (Final 30 Minutes): The teacher will assess the students based on their performance in the open-book test, focusing on their ability to analyze sourcing protocols, purification processes, and quality control. Peer assessment will also be incorporated, where students will provide feedback on each other's understanding and application of the material in real-world scenarios.

Experiential learning Activity

Experiential-Learning 22.1 : Preparation of *Siddha Internal Formulations* for Pediatric Systemic and Neurological Disorders

Total Duration of the Activities: 3 Hours
In this hands-on workshop, students will prepare two *Siddha internal formulations*—one for pediatric systemic illnesses like fever or respiratory infections, and another for neurological support such as epilepsy or developmental delays. The session focuses on ingredient properties, dosage safety, and pediatric-specific preparation techniques. Students will practice formulation under guidance, understand their therapeutic roles, and reflect on safety and effectiveness in child care.
Instructions to Students (First 30 Minutes): Attend the faculty-led demonstration of *internal formulation* preparation. One formulation will address pediatric systemic diseases, the other neurological disorders. Pay close attention to ingredient functions, age-specific dosage, preparation consistency, and safety protocols. Ask questions to clarify preparation techniques.
Students' Activities
Step – 01 (60 Minutes): In small groups, prepare a *Siddha formulation* for a pediatric systemic condition such as fever or respiratory infection. Document each preparation step, note key ingredients, and explain how the formulation enhances immunity and systemic wellness in children.
Step – 02 (60 Minutes): Prepare a *Siddha formulation* designed to support neurological health in pediatric cases such as epilepsy or delayed milestones. Highlight the rationale behind each ingredient, calculate age-appropriate dosages, and discuss how the *formulation* contributes to cognitive and developmental support.
Assessment (Final 30 Minutes): Teacher will assess each student on preparation accuracy, safety adherence, dosage precision, and their ability to explain therapeutic benefits. Assessment tools include practical viva, observation checklists, and peer feedback on *formulation* clarity and safety communication.

Experiential-Learning 22.2 : Internal *Siddha Formulations* for Pediatric Skin and Developmental Disorders

Total Duration of the Activities: 4 Hours
In this session, students will be introduced to the preparation and administration of *Siddha* internal formulations targeting pediatric skin conditions like eczema and dermatitis, as well as developmental disorders involving cognitive and growth delays. Faculty will demonstrate preparation steps, ingredient properties, and age-wise dosing protocols. Students will simulate safe administration, caregiver counselling, and management of side effects, reinforcing therapeutic understanding and patient-centered care.
Instructions to Students (First 30 Minutes): Attend the demonstration on the preparation of two *Siddha internal formulations:* one for pediatric skin health, and one for

developmental support. Note each ingredient's purpose, preparation method, and dosing rationale. In small groups, discuss how dosages are adapted for age and condition, and what safety precautions are necessary during use.
Students' Activities
Step – 01 (60 Minutes): Individually or in pairs, prepare a *Siddha internal formulation* aimed at treating a pediatric skin disorder (e.g., eczema or dermatitis). Record each preparation step, list the ingredient properties, and explain the formulation's intended therapeutic effect during a brief peer presentation.
Step – 02 (60 Minutes): Prepare a second *Siddha formulation* designed for pediatric developmental disorders such as growth delay or cognitive impairment. Justify the ingredient selection and calculate dosages for age groups such as infants, toddlers, and school-age children. Discuss intended physiological and cognitive benefits.
Step – 03 (60 Minutes): Engage in dosing simulations using pediatric profiles. Practice calculating exact dosages, explaining administration methods, and preparing caregiver instructions. Participate in role play scenarios addressing side effect management and communication with caregivers for safe home use.
Assessment (Final 30 Minutes): Teacher will assess each student based on their *formulation* technique, accuracy in dosage calculation, ability to communicate caregiver guidance, and responsiveness during role play. Evaluation tools include practical viva, checklist ratings, and peer review feedback.

Experiential-Learning 22.3 : Preparation and Application of External *Siddha* Remedies for Pediatric Skin, Eye, and Ear Disorders

Total Duration of the Activities: 3 Hours
This hands-on session enables students to prepare and apply *Siddha* external remedies for pediatric dermatological and sensory disorders, such as eczema, conjunctivitis, and ear infections. Students will create herbal pastes and oils, perform mock applications on models, and understand key safety protocols. The workshop integrates traditional principles with pediatric hygiene and caregiver guidance.
Instructions to Students (First 20 Minutes): Attend the teacher-led demonstration on preparing *Siddha* pastes and oils for pediatric skin, eye, and ear conditions. Note the ingredients, preparation steps, and application techniques. Discuss pediatric hygiene, dosage, and how to counsel caregivers on at-home usage safely.
Students' Activities
Step – 01 (70 Minutes): Individually or in small groups, prepare a herbal paste or oil suitable for treating pediatric eczema or skin rashes. Apply it on anatomical models to practice correct spreading and absorption techniques. Record all ingredients, steps, and safety considerations.
Step – 02 (70 Minutes): Prepare and demonstrate an external therapy for either a pediatric eye or ear condition *(e.g., herbal drops, fomentation)*. Emphasize gentle handling, precise dosage, and correct technique on simulation models. Discuss with peers how to adapt techniques for infants or toddlers.
Assessment (Final 20 Minutes): Teacher will assess students based on their formulation accuracy, application technique, hygiene adherence, and ability to communicate caregiver instructions. Peer feedback will support evaluation of teamwork and procedural understanding.

Experiential-Learning 22.4 : Preparation and Application of External *Siddha* Remedies in Pediatric Musculoskeletal Care

Total Duration of the Activities: 4 Hours
This hands-on workshop trains students in the preparation and clinical application of *Siddha* external remedies like medicated oils *(thailam)*, compresses *(pottanam)*, and poultices *(kizhi)* for pediatric orthopedic and musculoskeletal disorders. The focus is on achieving therapeutic efficacy while ensuring child-specific safety and proper

technique. Students observe demonstrations, prepare formulations, apply treatments on models, and finally develop a caregiver-friendly instruction guide.
Instructions to Students (First 20 Minutes): Observe the teacher-led demonstration on preparing pediatric-safe medicated oils and compresses. Focus on correct ingredient ratios, heating techniques, and pediatric massage or compress application. Take notes on safety precautions, suitable durations, and contraindications for children.
Students' Activities
Step – 01 (70 Minutes): In groups, prepare a selected external remedy such as *Murivenna thailam, Elakai pottanam, or Podi kizhi.* Record the preparation steps, heating temperatures, shelf-life, and safety notes. Ensure the formulation aligns with pediatric indications like sprains, muscle stiffness, or healing support post-fracture.
Step – 02 (70 Minutes): Practice applying the prepared formulations on anatomical models or simulated limbs. Focus on massage strokes, compress timing, and patient positioning to ensure safety and effective absorption in children. Discuss techniques to calm pediatric patients during external application.
Step – 03 (60 Minutes): Reflect on practical challenges, absorption feedback, and observed therapeutic benefits. Based on this, prepare a simple illustrated caregiver instruction guide for home-based external therapy use, emphasizing dosage, frequency, and safety precautions.
Assessment (Final 20 Minutes): Teacher will assess the quality and accuracy of preparation, correctness of application technique, and clarity of the caregiver instruction guide. Peer feedback will contribute to evaluating communication skills and collaborative execution.

Experiential-Learning 22.5 : *Siddha* Case-Based Management for Pediatric Ailments

Total Duration of the Activities: 4 Hours
This workshop immerses students in *Siddha*-based clinical decision-making through case scenarios involving respiratory, digestive, and systemic pediatric illnesses. Students analyze clinical data, select child-appropriate *Siddha* treatments—including internal medicines and external therapies—and develop comprehensive plans that include lifestyle and dietary recommendations. The session emphasizes age-adjusted safety, preventive care, and integration of traditional protocols for long-term pediatric wellness.

Instructions to Students (First 30 Minutes): Review the pediatric case scenarios provided. Identify presenting symptoms, underlying *uyir thathukkal imbalance, and ezhu udalkattugal status.* Use *Siddha* diagnostic logic to choose formulations, external therapies, and supportive lifestyle practices. Ensure dosing is suitable for pediatric patients and aligns with safety guidelines.
Students' Activities
Step – 01 (60 Minutes): Work in teams to design a treatment plan for common conditions like cold, cough, diarrhea, or indigestion. Select appropriate *Siddha* internal remedies and external therapies based on case specifics.
Step – 02 (60 Minutes): Address systemic pediatric conditions by designing a long-term *Siddha* management protocol that includes immunity boosters, dietary control, daily regimen *(naal ozhukkam),* and seasonal practices *(kaala ozhukkam).*
Step – 03 (60 Minutes): Present your team's treatment strategy, explaining rationale for chosen therapies, dosage considerations, and anticipated outcomes. Engage in discussion on prevention, lifestyle education for caregivers, and strategies to monitor treatment efficacy.
Assessment (Final 30 Minutes): Teacher will evaluate students' clinical reasoning, appropriateness of *Siddha* selections, safety considerations, and presentation clarity. Peer feedback and reflective discussion will support formative assessment on decision-making and patient-centered planning.

Experiential-Learning 22.6 : Designing Integrative Pediatric Treatment Plans from Case Reviews

Total Duration of the Activities: 4 Hours

This session enables students to bridge theory with real-world practice by analyzing successful *Siddha* pediatric treatment case studies. Students will evaluate therapeutic outcomes, identify critical *Siddha* formulations, and explore synergistic use of *Siddha* and modern medicine. They will develop holistic, safe, and patient-centric treatment plans, complete with dosage, follow-up care, and safety protocols tailored for pediatric patients.

Instructions to Students (First 30 Minutes): Review the provided successful treatment case studies in *Siddha* pediatrics. Observe how therapies were selected, dosages were derived, and results were monitored. Note integrative elements with modern interventions, if any. Prepare to use these examples to design your own care plan for assigned pediatric conditions.

Students' Activities

Step – 01 (60 Minutes): Analyze case reports in groups, focusing on *Siddha formulations,* route of administration, dosage calculation, and clinical outcomes. Identify therapeutic logic and discuss the reasoning behind the chosen management strategies.

Step – 02 (60 Minutes): Based on your analysis, propose an integrative pediatric care model. Combine *Siddha* therapies with supportive modern strategies (as needed), ensuring the plan aligns with safety, practicality, and child-centered healthcare principles.

Step – 03 (60 Minutes): Design a full treatment plan for the assigned condition: include medicine names, dosages (with age/weight adjustments), treatment duration, follow-up visits, and monitoring protocols. Present to peers for feedback and refine the plan accordingly.

Assessment (Final 30 Minutes): Teacher will assess students on clinical logic, formulation accuracy, integrative rationale, and safety of dosing. Presentations and viva will test understanding of the therapeutic plan, efficacy reasoning, and adaptability of *Siddha principles* to modern pediatric contexts. Peer feedback will contribute to reflective assessment.

Experiential-Learning 22.7 : *Siddha* Pediatric Formulation: Preparation to Packaging

Total duration ogf the Activities: 4 Hours

This session provides practical experience in the complete lifecycle of *Siddha* pediatric formulation development. It begins with raw material selection and proceeds through preparation *(Ilagam, Chooranam, Kudineer),* quality control and standardization, and ends with Good Manufacturing Practices (GMP)-compliant packaging and labeling. Students will apply safety and dosage standards suited for children while gaining insight into practical Good Manufacturing Practices (GMP) principles and pediatric formulation ethics.

Instructions to Students (First 20 Minutes): Observe the entire process of raw material selection, formulation preparation, and QC steps. Note techniques for ensuring child-safe doses. During hands-on activity, adhere strictly to Good Manufacturing Practices (GMP) standards and documentation protocols. Ensure final products are safely packaged and clearly labeled per pediatric care guidelines.

Students' Activities

Step – 01 (70 Minutes): Select appropriate raw materials with guidance. Wash, dry, powder, or decoct as per formulation type *(Ilagam, Chooranam, Kudineer).* Prepare one pediatric formulation under supervision, focusing on age-appropriate dosage and palatability.

Step – 02 (70 Minutes): Conduct quality checks including organoleptic assessment, pH, consistency, and presence of foreign matter. Implement basic standardization protocols and document parameters such as batch number, preparation date, and shelf-life estimate.
Step – 03 (60 Minutes): Simulate packaging and labeling of the prepared product. Ensure child-proof container usage, dosage instructions, and storage conditions. Justify Good Manufacturing Practices (GMP) adherence, including labeling requirements like expiry, warnings, and batch traceability.
Assessment (Final 20 Minutes): Teacher will assess formulation accuracy, safety precautions, quality control application, and packaging completeness. Evaluation will include a viva on Good Manufacturing Practices (GMP) and pediatric safety, as well as peer feedback on presentation and procedural adherence.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - 25 Marks – This modular assessment evaluates students' understanding of Siddha-based pediatric standard treatment protocols and safe drug formulation practices. Students will present a condition-specific Siddha treatment plan using internal or external formulations, and answer an open-book question evaluating their knowledge of dosing, standardization, and safety for pediatric Siddha applications. Instructions to Students: Student will provide a pediatric condition from the syllabus. Prepare a presentation detailing *Siddha* formulations (internal or external), their therapeutic role, dosage rationale, and safety standards. Include classical references and pharmacological justifications. Then, respond to an open-book question assessing your understanding of drug standardization methods and pediatric formulation safety protocols in *Siddha.* Instructions to Teachers: Frame condition-specific questions that test students' ability to apply *Siddha* formulations based on classical references and modern safety standards. Evaluate student presentations for formulation accuracy, systemic relevance, and pediatric suitability. Assess the open-book written response for clarity in standardization, age-specific dosage understanding, and alignment with *Siddha* pharmacological principles. Mark Distribution: Marks are distributed as follows: Presentation of *Siddha*-based pediatric treatment protocol carries 10 marks. Open-book written response on formulation safety or standardization techniques is allotted 7 marks. Use of classical *Siddha* references and pharmacological rationale is given 5 marks. Clarity, logical flow, and confidence in oral discussion hold 3 marks. & Section – B. 25 Marks This modular assessment evaluates students' ability to interpret Siddha pediatric therapeutic concepts through critical reading and express their understanding via creative writing. Students will analyze selected Siddha clinical or pharmaceutical content and compose reflective essays, practice-based case insights, or structured commentaries integrating classical knowledge, child-centric care principles, and standardization logic. Instructions to Students : Students will be given a critical reading paper or case excerpt related to *Siddha* pediatric treatment or drug preparation. After analysis, compose a creative written piece (essay, reflection, or case proposal) connecting Siddha principles with real-life pediatric contexts. Demonstrate understanding of disease management, dosing, safety, or Siddha-modern integration. Instructions to Teachers : Provide short Siddha clinical case studies, therapeutic excerpts, or pharmaceutical standardization passages for student review.	4

Guide students to write reflective or creative content based on the reading. Assess for integration of classical Siddha logic, pediatric adaptability, interpretative clarity, and therapeutic relevance. Emphasize coherence, originality, and child-centered healthcare articulation.
Mark Distribution : Marks are distributed as follows: Content interpretation from the reading material and accurate extraction of core Siddha ideas receive 10 marks. Relevance and originality of the creative writing response is allotted 7 marks. Alignment with Siddha classical or pharmacological rationale holds 5 marks. Structure, clarity, and creative expression earn 3 marks.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).

Semester No : 6

Module 23 : ??????? ????? ???????? ?????? ????????? ??????? ????????????? Kuzhanthaigal Siddha Maruthuvamanaigalai Niruvuthal Matrrum Nirvagithal (Establishing and Managing Pediatric Siddha Hospitals)

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

Describe legal, regulatory, and accreditation requirements for Siddha pediatric hospitals.
Plan infrastructure, staffing, and technology for child-friendly Siddha hospital facilities.
Demonstrate budgeting, financing, and pricing strategies in pediatric Siddha care.
Implement quality control, patient care protocols, and hospital operations management.
Apply marketing, branding, and community engagement strategies in hospital promotion.
Formulate sustainable and long-term planning approaches for Siddha pediatric hospitals.

M 23 Unit 1 ?????????? ????? ???????????????? ?????????? ??????? ????????????? ???????????? - Kuzhanthaigal Siddha Maruthuvamanaikkana Thittamidal matrum Ulkattamaippai Uruvaakkuthal - Hospital Planning and Infrastructure for Pediatric Siddha Hospitals

23.1.1 Legal and Regulatory Compliance – Health legislation adherence, licensing procedures, hospital accreditation norms, regulatory framework integration.
23.1.2 Infrastructure and Facilities Planning – Pediatric ward design, diagnostic and therapy space allocation, child-centric facility development.

23.1.3 Human Resources and Staffing – Medical and administrative recruitment, staff retention strategies, continuous professional development.
23.1.4 Technology and Accessibility – EMR systems, telemedicine integration, digital hospital management, special-needs accessibility provisions.
23.1.5 Sustainability and Supply Management – Green hospital practices, essential drug and supply procurement, ICU and emergency service establishment.

References: 142,143,144,145

3A	3B	3C	3D	3E	3F	3G
CO6,CO7,CO8	Discuss the legal framework essential for establishing pediatric Siddha hospitals.	1	Lecture	CC	Knows-how	L&PPT,L
CO6,CO7,CO8	Identify and describe key national and local health regulations for hospital accreditation.	1	Lecture	CC	Knows-how	L,L&PPT
CO2,CO3,CO4	Evaluate and apply legal and regulatory requirements for establishing a pediatric *Siddha* hospital and design an optimized hospital layout.	3	Practical Training 23.1	CC	Shows-how	TBL,IBL
CO6,CO7,CO8	Develop and integrate staffing and technology plans to optimize hospital operations and enhance pediatric care.	2	Practical Training 23.2	PSY-MEC	Shows-how	TBL,IBL,C_L
CO4,CO5	Apply digital tools and spatial insights to pediatric *Siddha care*	4	Experiential-Learning 23.1	CAP	Does	FV,SIM
CO5,CO6,CO7	Analyze hospital design and supply systems in *Siddha* pediatrics	3	Experiential-Learning 23.2	CAN	Does	TPW,DIS,L

M 23 Unit 2 ?????????? ??????? ??????: QCI, NABH ??????? ???? ??????????? - Angegaram matrum Urimam: QCI, NABH matrum Arasu Vidhimuraigal -Accreditation and Licensing: QCI, NABH, and Government Norms

23.2.1 Accreditation Processes and Requirements – QCI and NABH overview, *Siddha* pediatric hospital eligibility, accreditation framework understanding.
23.2.2 Application and Approval Process – NABH application steps, documentation preparation, approval navigation, regulatory interface protocols.
23.2.3 Quality Control and Safety Protocols – Infection control guidelines, medical waste management, safety protocol implementation, hospital quality measures.

23.2.4 Legal and Regulatory Compliance – Fire safety standards, environmental and labor law adherence, *Siddha* sector policy alignment, legal frameworks.
23.2.5 Maintaining Accreditation and Continuous Improvement – Staff training, periodic license renewal, audit compliance, continuous quality enhancement strategies.

References: 146,147,148,149

3A	3B	3C	3D	3E	3F	3G
CO6,CO7,CO8	Discuss licensing requirements to ensure compliance in Siddha healthcare facilities.	1	Lecture	CC	Knows-how	L,BS
CO6,CO7,CO8	Describe the required infrastructure for an effective pediatric Siddha hospital layout.	1	Lecture	CC	Knows-how	L_VC,PBL
CO2,CO3,CO4	Evaluate and apply National Accreditation Board for Hospitals & Healthcare Providers (NABH) accreditation standards specific to *Siddha* pediatric hospitals through mock application preparation.	3	Practical Training 23.3	PSY-MEC	Shows-how	C_L,PER,TBL
CO2,CO3,CO6	Apply Quality Council of India (QCI) and legal standards in hospital safety protocol development.	2	Practical Training 23.4	CAP	Shows-how	CBL,SIM,RP
CO4,CO6,CO8	Analyze National Accreditation Board for Hospitals & Healthcare Providers (NABH) standards to improve *Siddha* pediatric quality care	4	Experiential-Learning 23.3	CAN	Does	RLE,Mnt,FV
CO4,CO6,CO7	Apply National Accreditation Board for Hospitals & Healthcare Providers (NABH) standards in *Siddha* pediatric hospital accreditation process	3	Experiential-Learning 23.4	CAP	Does	RP,TPW,SIM,PSM

M 23 Unit 3 ??????????? ?????????? ????? ?????????? ??????? ???? ????????? ???????? – Maruthuvamanai Thittangalai Sandhai Paduthuthal matrum Nidhi Aadharangali Thirattal - Marketing and Financing Strategies for Hospital Projects

23.3.1 Business and Financial Planning – Pediatric hospital business models, budget forecasting, capital investment strategies, financial risk assessment.
23.3.2 Hospital Financing and Government Schemes – AYUSH financing programs, subsidy utilization, loan access, public-private partnership development.

23.3.3 Marketing and Branding – Digital outreach strategies, hospital brand identity, *Siddha* pediatric service promotion, online engagement tools.
23.3.4 Local Marketing and Patient Referral Networks – Community program design, local campaign execution, inter-hospital referral collaboration, regional patient access.
23.3.5 Pricing Strategies and Affordability – Cost-effective service models, pricing balance, affordability assurance, patient-centric financial planning.

References: 150,151,152,153

3A	3B	3C	3D	3E	3F	3G
CO6,CO7,CO8	Define essential roles of medical and non-medical staff in pediatric hospitals.	1	Lecture	CK	Knows-how	L&PPT ,BL
CO6,CO7,CO8	Outline effective recruitment and retention strategies in Siddha pediatric care.	1	Lecture	CK	Knows-how	L&GD
CO6,CO7,CO8	Illustrate the integration of hospital IT systems, including Electronic medical records (EMRs), in Siddha care.	1	Lecture	CK	Knows-how	
CO6,CO7,CO8	Evaluate financial planning for *Siddha* pediatric healthcare projects.	2	Practical Training 23.5	CE	Shows-how	RP,TPW, PrBL
CO6,CO7,CO8	Design marketing and outreach strategies for *Siddha* pediatric services.	3	Practical Training 23.6	CS	Shows-how	PrBL,RP, TBL
CO6,CO7,CO8	Design sustainable financial strategies for *Siddha* pediatric hospitals	4	Experiential-Learning 23.5	CS	Does	CBL,W,C_L,TPW

M 23 Unit 4 ?????????? ????????????: ?????????????, ???????? ??????? ???????? – Maruththuvamanai Seiyalpadugal: Melanmai matrum Valarchi -Hospital Operations: Execution, Management, and Growth

23.4.1 Operational and Patient Care Management – Daily hospital operations, pediatric care pathways, clinical governance systems, patient safety assurance.
23.4.2 Staff and Resource Management – Workforce scheduling, performance evaluation, revenue cycle control, hospital expenditure oversight.
23.4.3 Data-Driven Decision-Making – Healthcare analytics utilization, service optimization, patient feedback integration, continuous quality improvement.

23.4.4 Partnerships and Service Expansion – Pediatric specialty diversification, insurance collaborations, cashless service models, partnership frameworks.
23.4.5 Sustainable Growth and Long-Term Planning – Strategic planning, cost-innovation balance, patient-centric models, pediatric hospital sustainability roadmap.

References: 154,155,156,157

3A	3B	3C	3D	3E	3F	3G
CO6,CO7,CO8	Evaluate sustainability practices in pediatric Siddha hospital infrastructure and operations.	1	Lecture	CK	Knows-how	PAL,PSM
CO6,CO7,CO8	*Discuss* strategies for procuring and managing essential hospital medical supplies.	1	Lecture	CK	Knows-how	L&GD,L&PPT
CO6,CO7,CO8	*Outline* processes to set up effective emergency and intensive care units.	1	Lecture	CK	Knows-how	L&PPT,L&GD
CO3,CO6,CO7	Design integrated care pathways and hospital operations for *Siddha* pediatrics.	2	Practical Training 23.7	CS	Shows-how	TBL,SIM,CBL
CO4,CO6,CO7	Evaluate data to improve pediatric services and develop growth strategy.	3	Practical Training 23.8	CE	Shows-how	CBL,TPW,RP
CO4,CO6,CO7	Apply hospital management concepts in real *Siddha* pediatric settings	4	Experiential-Learning 23.6	CAP	Does	FV,DIS,RLE
CO4,CO6,CO7	Synthesize staffing and resource plans for pediatric *Siddha* hospital	4	Experiential-Learning 23.7	CS	Does	TPW,SIM,W

Practical Training Activity

Practical Training 23.1 : Establishing a Pediatric *Siddha* Hospital: Legal Compliance and Layout Design

Total Duration of the Activities: 3 Hours
In this practical session, students will research the legal and regulatory requirements necessary to establish a pediatric *Siddha hospital,* focusing on health regulations,

licensing, and accreditation. They will also design a hospital layout that includes pediatric wards, diagnostic centers, play areas, and emergency units, ensuring compliance and optimal use of space.
Instructions to Students (First 20 Minutes): The teacher will introduce the session by explaining the importance of legal compliance in setting up a pediatric *Siddha* hospital. Students will be divided into teams, each tasked with researching the legal steps for hospital setup, including required health regulations, licensing, and accreditation. They will also be introduced to design principles, focusing on pediatric care needs, space optimization, and compliance with regulations.
Students activities
Step 01 (First 70 Minutes):Students will work in teams to research the necessary legal requirements for hospital setup, including licensing, health regulations, and accreditation. They will compile a checklist of compliance steps and draft mock licensing documents. In parallel, they will begin designing the hospital layout using design software or manual sketches. The layout will include key areas such as pediatric wards, diagnostic centers, emergency units, and play areas, ensuring that the design supports optimal patient flow, safety protocols, and resource allocation.
Step 02 (Next 70 Minutes): Each team will develop and present a detailed hospital layout plan, explaining the rationale for space allocation, equipment placement, and considerations for patient flow. The layout should align with legal compliance and space optimization guidelines. Afterward, each team will present their combined compliance and layout plan to peers, highlighting key decisions made during the planning process. A Q&A session will follow to address design and regulatory decisions.
Assessment (Final 20 Minutes): The teacher will assess the students based on their presentation of the regulatory compliance checklist, sample licensing documents, and hospital layout plan. The evaluation will focus on the clarity and completeness of the compliance plan, as well as the design's efficiency in optimizing space and supporting pediatric care needs. Peer assessments will be incorporated to evaluate teamwork and the quality of the presentations. Feedback will be provided on both the legal documentation and layout design.

Practical Training 23.2 : Staffing and Technology Plan for a Pediatric *Siddha* Hospital

Total Duration of the Activities: 2 Hours
This practical session focuses on developing a staffing and technology plan for a pediatric *Siddha* hospital. Students will collaboratively create job descriptions, recruitment plans, and staff training schedules while considering the integration of modern technologies like electronic medical records (EMRs), telemedicine, and accessibility features. The focus will be on improving operational efficiency and the patient experience.
Instructions to Students (First 20 Minutes): The teacher will introduce the session by explaining the importance of both staffing and technology in the efficient functioning of a pediatric *Siddha* hospital. Students will be instructed to consider medical, paramedical, and administrative roles, as well as the integration of technology like EMRs and telemedicine. The teacher will highlight the need for accessibility features to cater to special-needs children and how these elements contribute to improving patient care. Students will be guided on how to collaboratively create job descriptions, recruitment plans, and technology proposals.
Students activities
Step 01 (First 40 Minutes): In groups, students will develop job descriptions for medical, paramedical, and administrative staff, outlining required qualifications, responsibilities, and skills. They will also draft a recruitment plan that includes strategies for attracting qualified staff. Additionally, students will design a staff training schedule that incorporates professional development, with a special focus on pediatric *Siddha care*. Students will research and integrate relevant technology advancements in hospital management systems, like EMRs and telemedicine, as well as accessibility features for special-needs children, ensuring compliance with accessibility standards.

Step 02 (Next 40 Minutes): Students will draft a proposal for the implementation of essential technologies, such as EMRs, telemedicine, and IT infrastructure that supports hospital operations. They will also outline accessibility features tailored to children with disabilities or special needs. The proposal should ensure these technologies are integrated seamlessly into hospital practices while improving efficiency and enhancing the patient experience. Each group will work on integrating the staffing and technology plans, aligning them with operational goals and a patient-centered approach.
Assessment (Final 20 Minutes - Step 03): Each group will present their integrated staffing and technology plan to the class, explaining the alignment of each element with the hospital's operational goals and patient care priorities. The teacher will assess each presentation for clarity, feasibility, and how well the proposed strategies address operational challenges and improve patient experience. Peer assessment will also play a role, allowing students to evaluate each other's plans based on creativity, practicality, and the integration of staffing and technology solutions. Feedback will be provided on each group's approach and suggestions for refinement.

Practical Training 23.3 : Simulated Audit on Hospital Safety and Legal Compliance in *Siddha* Pediatrics

Total Duration of the Activities: 2 Hours
Students will analyze and develop comprehensive hospital safety and legal compliance protocols tailored to pediatric *Siddha* hospitals. The session simulates a Quality Council of India (QCI) -based hospital audit focusing on infection control, biomedical waste handling, and legal frameworks such as fire safety, environmental law, and labor standards. Participants will create actionable checklists and participate in a simulated audit.
Instructions to Students (First 20 Minutes): Teacher will explain the objectives and outline mock inspection roles. Students will be grouped and provided key references from QCI/NABH manuals and legal norms. Each group will prepare protocol drafts and audit-ready documentation based on specific domains: infection control, waste management, fire safety, labor law, or hospital health compliance.
Students activities

Step – 01 (First 40 Minutes): Each group will draft practical safety protocols and regulatory compliance action plans for pediatric *Siddha* hospitals. These will include infection control, biomedical waste management, and legal documentation templates.
Step – 02 (Next 40 Minutes): Groups will participate in a mock hospital inspection scenario, simulating both internal auditors and hospital staff. A case-based discussion will follow, analyzing potential lapses and proposing remedial action.
Assessment Methods (Final 20 Minutes): Teacher will assess students using a protocol development checklist, observation during simulation, and QCI audit scoring rubrics. Group presentations and documentations will be reviewed. Peer feedback will be used to reflect on team roles, legal clarity, and practical utility of proposed solutions.

Practical Training 23.4 : Review and Simulation of National Accreditation Board for Hospitals & Healthcare Providers (NABH) Accreditation for *Siddha* Pediatric Hospitals

Total Duration of the Activities: 3 Hours
This practical session focuses on reviewing Quality Council of India (QCI) and National Accreditation Board for Hospitals & Healthcare Providers (NABH) accreditation guidelines with an emphasis on *Siddha* pediatric hospitals. Students will analyze these documents to identify key requirements for patient safety, clinical management, and

infrastructure. Following this, they will simulate the NABH application process by preparing mock applications that align with accreditation standards.
Instructions to Students (First 30 Minutes): The teacher will introduce the session by explaining the importance of NABH and QCI accreditation for *Siddha* pediatric hospitals. Students will be divided into teams and tasked with reviewing the accreditation guidelines, focusing on *Siddha*-specific requirements for pediatric hospitals. The teacher will guide the students on how to extract key standards related to patient safety, clinical management, and infrastructure from the documents. Students will be instructed to collect mock data relevant to hospital setup and compile a mock application that complies with these standards.
Students activities
Step 01 (First 60 Minutes): Students will work in teams to analyze QCI and NABH accreditation manuals, identifying *Siddha*-specific requirements for pediatric hospitals. They will create a checklist of essential accreditation requirements, including patient safety protocols, clinical management guidelines, and infrastructure specifications. Students will gather mock data related to hospital setup, ensuring it meets NABH standards. The focus will be on understanding the documentation required and the necessary steps to comply with accreditation standards. Teams will begin compiling the information needed for the mock application.
Step 02 (Next 60 Minutes): Teams will complete the mock NABH application, ensuring they include all required documentation, such as patient safety protocols, clinical management strategies, and infrastructure plans. They will follow the step-by-step instructions from the accreditation guidelines to ensure that the application is complete and meets NABH standards. Students will then prepare a summary of the application process and be ready to present their work in the next step.
Assessment (Final 30 Minutes - Step 03): Each team will present their mock NABH application to the class, explaining how they addressed the specific accreditation standards for *Siddha* pediatric hospitals. Peer review will follow, where students will evaluate each other's applications for completeness, accuracy, and adherence to NABH guidelines. The teacher will provide feedback on the application process, ensuring that all aspects of the accreditation requirements are met. Students will refine their applications based on peer and teacher feedback, reinforcing their understanding of NABH guidelines and the accreditation process.

Practical Training 23.5 : Business Plan and Financial Planning for a *Siddha* Pediatric Hospital

Total Duration of the Activity: 2 Hours
This practical enables students to design a realistic business plan for establishing a *Siddha* pediatric hospital. The session covers budgeting, capital investment, financial forecasting, risk analysis, and funding strategies. Students will also simulate funding discussions with stakeholders like government agencies or investors, enhancing their financial literacy and entrepreneurial abilities within the *Siddha healthcare* ecosystem.
Instructions to Students (First 20 Minutes): Teacher will introduce students to hospital financial planning concepts, including capital needs (infrastructure, equipment), operational costs (staff salaries, utilities), and income sources. Students must explore financial tools like government subsidies, private partnerships, and bank loans. Each group will be assigned to prepare a business proposal and a simulated investor pitch.
Students activities
Step – 01 (First 40 Minutes): Each group will develop a detailed business plan with estimated budgets, capital investment breakdowns, revenue forecasts, and risk mitigation strategies. They will prepare a brief financial presentation highlighting how their *Siddha* pediatric hospital will sustain and grow financially.
Step – 02 (Next 40 Minutes): Groups will simulate a funding negotiation or investment pitch to a mock panel (teacher/peers), explaining their financial plan, the hospital's healthcare value, and alignment with public health needs. The proposal should also identify applicable funding schemes or partnerships.
Assessment Methods (Final 20 Minutes): Teacher will assess the clarity, feasibility, and completeness of the business plan, focusing on realistic budgeting and risk planning.

Role play will be evaluated based on persuasion, clarity, and application of financial strategies. Peer feedback will contribute to assessing group collaboration and communication effectiveness.

Practical Training 23.6 : Strategic Marketing, Outreach, and Pricing for *Siddha* Pediatric Hospitals

Total Duration of the Activity: 3 Hours
This practical trains students to develop a complete marketing strategy for *Siddha* pediatric hospitals. It includes digital and community outreach, referral network building, and cost-sensitive pricing. The goal is to align holistic *Siddha* care with modern promotional and operational sustainability principles. Students will conduct strategic planning and role play real-world networking and pricing decisions, simulating how hospitals grow through effective public engagement and service access.
Instructions to Students (First 30 Minutes): Teacher will guide students on defining *Siddha* pediatric hospital branding, identifying digital and community marketing tools, planning referral networks, and analyzing service costs. Students must form teams to prepare a mock marketing campaign, a community referral plan, and a pricing structure ensuring both access and sustainability.
Students activities
Step – 01 (First 60 Minutes): Students will create a branding and marketing strategy incorporating a sample digital campaign (e.g., social media posters, website mock-up), and a plan for outreach events in schools or community centers. Peer groups will provide feedback on communication clarity and *Siddha* alignment.
Step – 02 (Next 60 Minutes): Groups will design a referral network with schools and health centers, and simulate meetings with potential partners. Then, they will analyze basic cost structures and propose tiered pricing or sliding-scale fees, explaining how the model supports patient access and financial balance.
Assessment Methods (Final 30 Minutes): Teacher will assess the quality of marketing strategy, outreach proposal, referral network planning, and pricing logic using a structured rubric. Role-play realism, innovation, and teamwork will be considered. Peer assessments will be used to enhance feedback and evaluate communication skills and strategic alignment with *Siddha pediatric* care goals.

Practical Training 23.7 : Designing Patient Care Pathways and Staff Performance Systems in *Siddha* Pediatric Hospitals

Total Duration of the Activity: 2 Hours
This session trains students to design a comprehensive patient care pathway from admission to discharge within a *Siddha* pediatric hospital. It includes clinical safety protocols, staff role mapping, and operational management systems. Students will simulate patient flow, prepare weekly staff schedules, and create evaluation tools and a financial tracking framework to ensure care quality and sustainability.
Instructions to Students (First 30 Minutes): Teacher will brief students on essential components of a *Siddha*-based patient care pathway: admission, clinical care, discharge planning, and follow-up. Emphasis will be given to infection control, safety audits, and treatment governance. Students will also be guided to prepare staff rotation schedules and design performance monitoring systems aligned with both *Siddha* and hospital standards.
Students activities (Next 60 mins)
Step – 01 (First 30 Minutes): Each team will design a flowchart outlining a pediatric patient's journey across departments—OP, IPD, pharmacy, lab, discharge—integrating *Siddha practices*, safety, and efficiency. Simulations will be done using model patient cases.

Step – 02 (Next 30 Minutes): Students will create a weekly staffing schedule and staff performance evaluation format. They will also simulate a basic financial report showing revenue streams and operational expenses, explaining how sustainability and quality are maintained.
Assessment Methods (Final 30 Minutes): Teacher will evaluate the care pathway design, accuracy of role distribution, clarity of documentation, and financial simulation using a structured checklist. Presentations will be assessed for alignment with clinical safety, *Siddha* protocol adherence, and operational feasibility. Peer review will be included for teamwork and clarity of simulated flow.

Practical Training 23.8 : Strategic Planning and Service Expansion in *Siddha* Pediatric Hospitals

Total Duration of the Activity: 3 Hours
This practical session focuses on analyzing hospital data to enhance operational efficiency and pediatric patient satisfaction within a *Siddha* care setting. Students will use this analysis to create strategic proposals for expanding pediatric services, incorporating cashless insurance options, and planning long-term institutional growth. Activities include data-driven analysis, service planning, mock negotiations with insurers, and strategic document preparation aligned with *Siddha* pediatric care principles.
Instructions to Students (First 30 Minutes): Teacher will introduce a sample dataset reflecting patient care quality and operational performance. Students will be grouped and assigned tasks including identifying operational bottlenecks, recommending service improvements, planning specialty expansion *(e.g., Siddha* neurodevelopmental clinics), and preparing for a mock negotiation with an insurance partner. Guidelines for drafting a 5-year growth plan will be shared.
Students activities
Step – 01 (First 60 Minutes): Groups will analyze the dataset, identify trends, and prepare an improvement report highlighting care gaps, cost control suggestions, and satisfaction enhancement strategies aligned with *Siddha care* philosophy.
Step – 02 (Next 60 Minutes): Students will simulate insurance negotiations, present a service expansion plan including proposed specialties *(e.g., Siddha Pediatric Rehabilitation),* and develop a five-year strategic growth document. Peer teams will provide critique on feasibility and innovation.
Assessment Methods (Final 30 Minutes): Teacher will assess each group using a structured rubric evaluating data interpretation, innovation in proposals, strategic alignment with *Siddha* pediatrics, and clarity in presentations. Role play performance and peer assessments will contribute to evaluating negotiation skills, planning capability, and collaborative execution.

Experiential learning Activity

Experiential-Learning 23.1 : Hospital Infrastructure and Digital Tools for *Siddha* Pediatric Care

Total Duration of the Activities: 4 Hours
This integrated experiential session allows students to explore how pediatric healthcare infrastructure and digital health tools such as Electronic Medical Records (EMR) and telemedicine contribute to *Siddha*-based pediatric care. The session starts with a field visit to a pediatric hospital to study facilities tailored for children, including layout, safety measures, and patient engagement zones. Students then shift to a digital simulation environment where they enter mock data, manage pediatric consultation schedules, and conduct virtual sessions using *Siddha principles.* The goal is to correlate physical infrastructure with digital innovation to support holistic, efficient child care delivery.
Instructions to Students (First 20 Minutes): Teacher will brief students on observation goals for the field visit, focusing on pediatric wards, play zones, diagnostic units, and

equipment suited for child care. During the simulation, students will be guided to use EMR software for data entry and scheduling and practice telemedicine features. They must observe patient-centered aspects, data security, and software usability, and note reflections for later discussion.
Students' Activities
Step – 01 (70 Minutes): Students will tour pediatric hospital facilities and analyze how spatial design, specialized tools, and child-friendly areas enhance safety, comfort, and healing. They will take notes on environmental factors like noise control, layout planning, and access to emergency support systems.
Step – 02 (70 Minutes): In the simulation lab, students will practice pediatric data entry using EMR, schedule virtual consultations, and explore software features including documentation, alerts, and reporting. The emphasis will be on *Siddha* integration and accurate record-keeping for pediatric clinical follow-up.
Step – 03 (60 Minutes): Students will simulate a pediatric *Siddha* telemedicine consultation, role-playing both doctor and caregiver. They will then write a reflection on how hospital infrastructure and digital tools support pediatric *Siddha care*, and suggest areas for technological or spatial improvement in child-friendly environments.
Assessment (Final 20 Minutes): Teacher will evaluate participation using an observation checklist during the field visit and EMR simulation. Students' reflective reports will be reviewed for clarity, practicality, and critical thinking. The mock telemedicine session will be assessed for accuracy, communication, and alignment with pediatric *Siddha* protocols.

Experiential-Learning 23.2 : Designing and Managing *Siddha* Pediatric Hospitals – Infrastructure and Sustainability

Total Duration of the Activities: 3 Hours
This experiential learning session introduces students to the practical aspects of pediatric *Siddha* hospital design and management. It begins with a guest session by a hospital architect or pediatric hospital manager who shares insights into space planning, child-friendly environments, and patient flow optimization aligned with *Siddha principles.* Students then examine a case study on hospital supply chain and sustainability practices. Working in teams, they identify issues in procurement, storage, and environmental impact and propose practical improvements that reflect Siddha values such as eco-consciousness, natural materials, and simplicity in care delivery.
Instructions to Students (First 20 Minutes):During the guest expert session, take detailed notes on pediatric hospital layout essentials, optimal space usage, and designing for comfort and healing. After the presentation, form groups and review the case study handout on pediatric hospital logistics and environmental practices. Identify areas for improvement in supply chain management and sustainability strategies.
Students' Activities
Step – 01 (40 Minutes): Summarize key takeaways from the guest session, focusing on *Siddha*-appropriate infrastructure elements such as natural lighting, non-toxic materials, and child-engagement areas. List practical principles for designing a *Siddha* pediatric hospital that ensures smooth patient flow and operational efficiency.
Step – 02 (40 Minutes): Analyze the case study, pinpointing inefficiencies in supply chain flow, procurement delays, or poor storage conditions. Evaluate the sustainability practices (waste management, green procurement, energy use). Draft a hospital layout sketch and develop proposals for sustainable, cost-effective, and culturally aligned operations.
Step – 03 (60 Minutes):Each group presents its hospital design and supply chain proposals, highlighting how they enhance efficiency, patient comfort, and environmental responsibility. Students reflect on how *Siddha principles* can be incorporated into hospital design and supply chain ethics. Peer feedback will be shared.
Assessment (Final 20 Minutes):Teacher will assess group presentations using a rubric focusing on design logic, sustainability integration, and *Siddha* alignment. The reflective report will be evaluated for analytical depth and practical application. Peer reviews will gauge teamwork and clarity of communication.

Experiential-Learning 23.3 : Observation and Analysis of National Accreditation Board for Hospitals & Healthcare Providers (NABH) Quality Practices for *Siddha* Pediatric Hospitals

Total Duration of the Activities: 4 Hours

This field visit enables students to experience the implementation of National Accreditation Board for Hospitals & Healthcare Providers (NABH) quality assurance standards in a modern hospital. Students will observe how infection control, patient safety, documentation, and Standard Operating Procedure (SOPs) are maintained across clinical and administrative departments. Faculty will facilitate department-wise exploration and real-time observation of standard practices. The aim is to help students reflect on how these standards can be realistically adapted and applied within *Siddha* pediatric hospital settings to ensure safe, ethical, and quality patient care.

Instructions to Students (First 20 Minutes):Observe the functioning of wards, ICUs, pharmacies, and infection control units, focusing on infection control, safety protocols, Standard Operating Procedure (SOPs), and documentation. Note how National Accreditation Board for Hospitals & Healthcare Providers (NABH) standards are integrated into daily operations, training, and audits. Interact respectfully with hospital staff and clarify your doubts with faculty.

Students' Activities

Step – 01 (70 Minutes): Students will visit different departments and record observations on adherence to NABH protocols—such as biomedical waste handling, hand hygiene compliance, patient identification checks, and emergency preparedness. Notes should highlight both strengths and observed challenges in quality maintenance.

Step – 02 (70 Minutes): Students will regroup and analyze how each observed NABH component supports patient safety and care outcomes. Discussions will focus on the importance of checklists, standardization, error reporting, and patient feedback mechanisms in maintaining high clinical standards.

Step – 03 (60 Minutes): Each group will draft a reflective proposal on adapting NABH-like practices in *Siddha* pediatric hospital settings. Proposals will include recommendations for infection control, Standard Operating Procedure (SOP) creation, staff training modules, and patient engagement based on *Siddha* healthcare principles.

Assessment (Final 20 Minutes): Teacher will assess student performance using a checklist for completeness of observations and depth of analysis in the reflective report. Peer review will be used to evaluate presentation clarity and relevance of proposals. Emphasis will be placed on realistic integration of NABH practices into *Siddha* settings.

Experiential-Learning 23.4 : Simulated National Accreditation Board for Hospitals & Healthcare Providers (NABH) Accreditation for *Siddha* Pediatric Hospital

Total Duration of the Activities: 3 Hours

This simulated experiential learning session replicates the NABH accreditation process for a *Siddha* pediatric hospital. Students are grouped into accreditation teams and assigned tasks such as drafting sample documents (e.g., infection control protocols, patient safety guidelines), creating compliance checklists, and participating in mock audit scenarios. Faculty guide each step, ensuring understanding of National Accreditation Board for Hospitals & Healthcare Providers (NABH) standards, protocol structuring, and practical audit preparedness. Emphasis is placed on quality, compliance, and realistic audit interaction to build practical institutional accreditation readiness.

Instructions to Students (First 20 Minutes): Review core National Accreditation Board for Hospitals & Healthcare Providers (NABH) standards focusing on infection control, patient safety, and quality management. Begin drafting key policy documents and checklists. Prepare for simulated auditor interactions where you will present documents and defend your compliance strategies during mock audits.

Students' Activities

Step – 01 (40 Minutes): Each team will draft sample National Accreditation Board for Hospitals & Healthcare Providers (NABH) -compliant documents including: quality

policy statements, infection control protocols, hand hygiene SOPs, and patient safety procedures. Teams will also prepare department-wise compliance checklists for pediatric care settings.
Step – 02 (40 Minutes): Teams will engage in mock audits. Faculty will act as auditors, posing common queries. Teams must present documentation, clarify processes, and demonstrate audit preparedness. Teams will record gaps identified during feedback and revise their compliance strategy accordingly.
Step – 03 (40 Minutes): Each team will reflect on the audit simulation and finalize a National Accreditation Board for Hospitals & Healthcare Providers (NABH) readiness report. This will include improvements to their documentation, procedural clarity, and response handling. Teams will share their learning outcomes through a short presentation.
Assessment (Final 20 Minutes):Teacher will assess using an National Accreditation Board for Hospitals & Healthcare Providers (NABH) simulation checklist focusing on documentation accuracy, audit readiness, and communication clarity. Peer teams will provide structured feedback. A short viva will test individual understanding of accreditation relevance and readiness strategies for *Siddha* pediatric hospitals.

Experiential-Learning 23.5 : Financial Planning for a *Siddha* Pediatric Hospital

Total Duration of the Activities: 4 Hours
In this workshop, students will work in teams to create a detailed financial blueprint for establishing and operating a *Siddha* pediatric hospital. This includes drafting budgets for infrastructure and equipment, calculating recurring operational costs, forecasting revenue from *Siddha*-based services, and planning for financial risks. Teams will simulate real-world hospital finance planning with guidance from faculty on cost estimation, ethical revenue models, and financial sustainability. The session integrates healthcare management principles with *Siddha* institution development.
Instructions to Students (First 20 Minutes): Review the financial objectives and constraints typical to a *Siddha* pediatric hospital. Collaborate with your team to outline a detailed financial plan, including start-up capital, monthly operational costs, anticipated revenue streams, and investment needs. Identify potential financial risks and plan strategies for risk mitigation (e.g., insurance, emergency funds, diversifying revenue).
Students' Activities
Step – 01 (70 Minutes): Teams will draft a hospital budget, identifying capital expenses like construction, furnishings, and equipment. They will also estimate recurring costs such as salaries, supplies, electricity, maintenance, and external therapy setup.
Step – 02 (70 Minutes): Teams will forecast revenue from outpatient care, *Siddha* pharmacy, pediatric wellness programs, diagnostics, and insurance reimbursements. They will calculate expected break-even points and assess profitability timelines for sustainability.
Step – 03 (60 Minutes): Each team will outline a financial risk management plan, covering strategies like health insurance partnerships, emergency reserves, and service diversification. They will present their comprehensive financial strategy, explaining justifications for budgetary choices and ethical implications.
Assessment (Final 20 Minutes): Teacher will evaluate the financial plans based on clarity, feasibility, sustainability, and *Siddha* alignment using a structured rubric. Peer feedback will assess innovation and collaboration. Teams will also answer brief Q&A to reflect financial decision-making skills.

Experiential-Learning 23.6 : Field Observation of Hospital Management in Pediatric *Siddha Care*

Total Duration of the Activities: 4 Hours

This experiential session involves a field visit to a functional pediatric *Siddha* hospital, offering students direct exposure to the hospital's operational framework. Students will systematically observe patient registration, triage, consultation, pharmacy, therapy units, diagnostics, and administration. Through interaction with hospital personnel and observation of real-time workflows, students will understand how operational strategies, communication flow, safety standards, and patient-centered practices align to ensure effective pediatric care in a *Siddha* setting. The visit bridges theory with practical hospital management.

Instructions to Students (First 20 Minutes): Before the visit, review the objectives of hospital management observation. Pay attention to patient flow, communication between staff, safety protocols, and use of hospital resources. Be respectful and maintain professional behavior, ensuring patient privacy and data confidentiality. Ask relevant questions to hospital staff about best practices and challenges faced in delivering pediatric care.

Students' Activities

Step – 01 (70 Minutes): Observe patient flow areas including registration, triage, and clinical consultations. Focus on how staff coordinate across departments to manage pediatric cases, manage waiting areas, and implement efficient care delivery.

Step – 02 (70 Minutes): Visit therapeutic units, pharmacy, and diagnostics. Analyze how medicines, herbal formulations, and *therapies* are stored, dispensed, and delivered. Observe adherence to hygiene, infection control, and safety practices during service delivery.

Step – 03 (60 Minutes): Interact with hospital management personnel to explore administrative functions, documentation systems, patient records, staff deployment, and quality assurance mechanisms. Discuss operational bottlenecks and suggest solutions for enhanced efficiency.

Assessment (Final 20 Minutes): Teacher will assess students through an observation checklist and a structured reflective report summarizing key learning, areas for improvement, and actionable insights. Peer review will focus on team participation and depth of understanding during discussions. A brief group debriefing will conclude the session.

Experiential-Learning 23.7 : Strategic Staff and Resource Scheduling for *Siddha* Pediatric Hospital

Total Duration of the Activities: 4 Hours

In this workshop, students will collaboratively design a realistic staff and resource scheduling blueprint for a hypothetical pediatric *Siddha* hospital. They will analyze patient inflow data, department demands, and available workforce while balancing quality care, cost-efficiency, and safety. Students will create shift plans, allocate diagnostic and therapy resources, and align schedules with operational goals. Faculty will supply sample hospital metrics and constraints. The exercise fosters strategic planning, resource management, and systems thinking in a *Siddha* healthcare context.

Instructions to Students (First 20 Minutes): Work collaboratively to understand the hospital's operational needs, including peak patient flow, staffing ratios, and department-specific demands. Consider budgetary constraints and performance metrics when planning staff shifts and resource usage. Ensure the schedule promotes smooth workflow, adequate patient care, and efficient utilization of both human and material resources. Maintain balance between cost-effectiveness and high-quality care delivery.

Students' Activities

Step – 01 (60 Minutes): Draft an initial staffing plan that covers shift timings, medical and non-medical staff distribution, peak-hour coverage, and rotation policies. Ensure the plan reflects real-time needs of pediatric *Siddha* units such as outpatient care, *Varmam therapy*, pharmacy, and inpatient services.

Step – 02 (70 Minutes): Formulate a resource utilization strategy. Assign essential diagnostic tools, therapy equipment, and facility use based on patient flow and department priorities. Consider emergency readiness and operational sustainability.
Step – 03 (70 Minutes): Integrate staffing and resource strategies into a final scheduling plan. Prepare a presentation justifying choices based on operational data, cost management, quality assurance, and patient outcome impact. Include visual scheduling charts and outcome metrics.
Assessment (Final 20 Minutes): Teacher will evaluate each group's plan using a structured rubric focusing on feasibility, resource optimization, safety alignment, and strategic clarity. Peers will offer feedback on presentation quality and collaborative strength. A brief viva will test understanding of scheduling logic and operational impact in *Siddha* pediatric care.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - 25 Marks - ABQ/ LAQ/SAQ & Section – B. 25 Marks This modular assessment evaluates students' understanding of pediatric Siddha hospital management systems through structured presentations, oral viva, and online quizzes. Students will explore legal, infrastructural, operational, and financial aspects of Siddha pediatric care. The assessment encourages critical thinking, practical application, and digital responsiveness to real-world healthcare administration challenges. Instructions to Students: Prepare a short presentation on given topic from the module, focusing on hospital compliance, infrastructure, human resources, or sustainability. Participate in a viva discussing your topic's relevance to Siddha pediatric practice. Conclude the session by completing an online quiz testing your comprehension of accreditation, operations, and regulatory planning. Instructions to Teachers: Assign students individual or group presentation topics aligned with the module subunits. Use the viva to probe deeper into their understanding of regulatory frameworks, hospital logistics, or pediatric service planning. Evaluate presentations for clarity and applicability. Design an online quiz to test knowledge on standards, accreditation, and financial management. Mark Distribution: Marks are distributed as follows: The student's structured presentation on a hospital management topic carries 10 marks. Oral viva performance, including regulatory understanding and relevance to Siddha pediatric context, carries 7 marks. The online quiz evaluating module-wide knowledge is allotted 5 marks. Clarity, time management, and confidence earn 3 marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).	4

Module 24 : ?????? ???????? ????? ??????? ?????????????? ????? ????????? ??????? ???????????Thozhil Munaivil Siddha Kuzhanthai Maruthuvathirkana Puthiya Ukthigal and Vaipugal (Innovation and Oppertunities in Siddha Pediatric Entrepreneurship)

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

Describe the process of establishing pediatric Siddha pharmaceutical and wellness enterprises.
Identify government schemes and navigate regulatory pathways for Siddha startups.
Describe global market potential and develop export strategies for Siddha pediatric products.
Design innovative Siddha-based telemedicine, wellness, and rehabilitation services for children.
Develop and promote Siddha pediatric health tech tools like mobile apps and school programs.
Integrate business, regulatory, and clinical knowledge to innovate in pediatric Siddha healthcare.

M 24 Unit 1 ??????? ????????? ??????????? ???????????? ??????? ????? ???????????????? ????????????? - Marunthu Thayarippu Niruvanangalai Uruvaakkuthal matrum Pudhiya Marunthukalukkana Voippugal -Pharmaceutical Development and New Product Opportunities

24.1.1 Setting up Pediatric Siddha Pharmaceutical Units – Manufacturing infrastructure planning, equipment setup, personnel requirements, pediatric drug production workflow.
24.1.2 Identifying Market Gaps and Product Development – Pediatric care needs assessment, unmet demand analysis, Siddha formulation innovation, product development pipeline.
24.1.3 Formulation and Product Design – Pediatric dosage forms, syrup and powder formulation, taste masking, age-appropriate delivery systems.
24.1.4 Regulatory and Compliance – Siddha manufacturing laws, licensing protocols, clinical trial guidelines, pediatric product safety regulations.
24.1.5 Product Launch and Distribution – Marketing strategies, packaging and labeling compliance, distribution channel setup, pediatric Siddha product launch.

References: 158,159,160,161

3A	3B	3C	3D	3E	3F	3G
CO6,CO7,CO8	Describe steps for setting up and developing Siddha pediatric products.	1	Lecture	CK	Know	L&PPT

						,L_VC
CO6,CO7,CO8	Formulate pediatric Siddha drugs, ensuring compliance, accurate dosing, and distribution.	1	Lecture	CK	Know	L&GD,RP
CO6,CO7,CO8	Describe the steps for applying to grants, subsidies, and incentives for Siddha startups.	1	Lecture	CK	Know	BL
CO6,CO7	Design *Siddha* pharma unit and propose pediatric product innovations.	3	Practical Training 24.1	PSY-ORG	Knows-how	PrBL,SIM
CO3,CO6,CO7	Apply regulatory guidelines to *Siddha* pediatric product submissions.	2	Practical Training 24.2	CAP	Shows-how	CBL,LS,PBL
CO2,CO4,CO6	Design safe, child-friendly *Siddha* formulations for pediatric care	4	Experiential-Learning 24.1	CS	Does	FV,SIM,TPW
CO2,CO6,CO7	Formulate a launch strategy integrating *Siddha* and marketing principles	3	Experiential-Learning 24.2	CS	Does	PL,TPW,CBL,PrBL,DIS

M 24 Unit 2 ??????????????????, ???? ????????????? ???? ?????????? ??????? ??????????? - Marunthu Porutkal, Unavu Porutkalukkana Arasu Maaniyamgal matrum Opputhalgal -Government Subsidies and Product Approval for Pharmaceuticals and Foods

24.2.1 Government Subsidy Programs for Siddha Products – Central and state subsidy schemes, development grants, pediatric Siddha product funding support.
24.2.2 Eligibility and Application for Financial Support – Grant eligibility criteria, subsidy application procedures, startup support mechanisms, funding documentation.
24.2.3 Navigating Regulatory Bodies for Approvals – AYUSH, FSSAI, CDSCO regulatory protocols, pediatric product certification, clinical and food product guidelines.
24.2.4 Product Approval and Compliance – Approval filing for drugs and nutraceuticals, packaging standards, labeling norms, pediatric safety regulations.
24.2.5 Tax Incentives and Government Contracts – Tax exemption schemes, public procurement processes, government supply chain integration, pediatric Siddha product tenders.

References: 158,159,162,163

3A	3B	3C	3D	3E	3F	3G
CO6,CO7,CO8	Outline procedures for approvals from Ayush, Food Safety and Standards Authority of India (FSSAI), Central Drugs Standard Control Organisation (CDSCO) for pediatric products.	1	Lecture	CK	Know	BL
CO6,CO7,CO8	Describe filing processes for product approvals, compliance, tax incentives, contracts.	1	Lecture	CK	Know	L&GD
CO6,CO7,CO8	Apply for subsidies and comply with *Siddha* product regulations.	3	Practical Training 24.3	CAP	Shows-how	SIM,LS,CBL
CO6,CO7	Create compliant labels and proposals, applying tax incentives effectively.	2	Practical Training 24.4	CAP	Shows-how	PrBL,TBL
CO2,CO6,CO7	Apply government scheme guidelines to *Siddha* project planning	3	Experiential-Learning 24.3	CAP	Does	PAL,PrBL,W
CO2,CO4,CO7	Analyze regulatory pathways in *Siddha* pediatric product approval	4	Experiential-Learning 24.4	CAN	Does	PrBL,PL,CBL,DIS

M 24 Unit 3 ????? ??????? ???????? ????????????? ???????? ??????? ??????? ????? ????????????? – Siddha Kuzhanthai Maruthuva Porutkalukkana Ettrumadhi matrum Sarvadesa Voippugal -Export Opportunities and Global Market for Siddha Pediatric Products

24.3.1 Global Demand for Siddha Pediatric Products – International market assessment, pediatric Siddha product demand analysis, global export potential evaluation.
24.3.2 Regulations and Compliance – Export documentation, international regulatory requirements, quality certifications, compliance with global pharmaceutical standards.
24.3.3 International Market Exploration – Target market identification, Asia–Europe–North America opportunities, distributor and partner networking.
24.3.4 Building an Export Strategy – Export planning, logistics coordination, pediatric product packaging, international transportation setup.
24.3.5 Export Incentives and Marketing – Government export support schemes, subsidy access, digital promotion, international branding of Siddha pediatric products.

References: 164,165,166,167,168

3A	3B	3C	3D	3E	3F	3G
CO6,CO7	Identify global market demand, export regulations, and international market opportunities.	1	Lecture	CK	Know	BL,BS
CO6,CO7	Develop export strategies with focus on logistics, incentives, and marketing.	1	Lecture	CK	Know	BL,BS
CO6,CO7,CO8	Analyze global trends and compliance needs for product export.	3	Practical Training 24.5	CAN	Shows-how	PrBL,CBL,SIM
CO4,CO6,CO7	Apply export and marketing strategies in *Siddha* pharmaceuticals	2	Practical Training 24.6	CAP	Shows-how	DIS,PAL,C_L
CO4,CO6,CO7	Apply export compliance principles to *Siddha* pediatric healthcare	3	Experiential-Learning 24.5	CAP	Does	FV,TBL,PAL
CO4,CO6,CO7	Apply export protocols to *Siddha* pediatric product standards	3	Experiential-Learning 24.6	CAP	Does	RLE,PL,FV

M 24 Unit 4 ??????? ????? ?????????????? ????????? ?????????? – Kuzhanthai Siddha Maruthuvathil Pudhumaiyana Muyarchigal -Innovative Ventures in Pediatric Siddha Care

24.4.1 Launching a Pediatric Siddha Telemedicine Service – Siddha e-consultation frameworks, pediatric virtual care models, digital follow-up protocols.
24.4.2 Establishing Pediatric Siddha Wellness Centers – Holistic care models, pediatric preventive services, community Siddha wellness integration.
24.4.3 Developing Mobile Apps for Siddha Health Tracking – Siddha-based digital tools, pediatric health monitoring apps, parent-guided care platforms.
24.4.4 Innovations in Pediatric Siddha Therapy and Rehabilitation – New therapeutic models, Siddha rehabilitation protocols, care innovations for special pediatric needs.
24.4.5 Creating Siddha-Based Pediatric Wellness Programs for Schools – School health initiatives, Siddha preventive modules, dietary and lifestyle-based pediatric wellness education.

References: 169,170,171,172

3A	3B	3C	3D	3E	3F	3G
CO6,CO7	Identify steps for launching telemedicine platforms for Siddha pediatric consultations.	1	Lecture	CAP	Know	BL,BS
CO6,CO7	Outline strategies for creating Siddha wellness centers and school wellness programs.	1	Lecture	CAP	Know	PAL,Mnt
CO6,CO7	Identify innovations in Siddha health tracking and therapy for pediatric care.	1	Lecture	CK	Know	BS,BL
CO4,CO6,CO7	Create *Siddha*-based digital tools for pediatric care delivery	2	Practical Training 24.7	PSY-ORG	Shows-how	PrBL,TPW,SIM
CO1,CO4,CO6	Create wellness centers and programs for *Siddha*-based pediatric preventive care	3	Practical Training 24.8	PSY-ORG	Shows-how	PrBL,BS,RP,SIM
CO3,CO4,CO6	Design a *Siddha*-based pediatric wellness center layout	3	Experiential-Learning 24.7	CS	Does	PrBL,FV,DIS,W
CO4,CO5,CO7	Develop integrative *Siddha* wellness programs for school health	3	Experiential-Learning 24.8	CS	Does	PAL,PrBL,RP,W

Practical Training Activity

Practical Training 24.1 : Designing a Pediatric *Siddha* Pharmaceutical Unit and Market-Driven Product Development

Total Duration of the Activities: 3 Hours

This session enables students to design a functional *Siddha* pharmaceutical unit for pediatric product preparation and simultaneously conduct a market analysis to identify unmet pediatric healthcare needs. Students will draft a layout plan focusing on safe, child-friendly production, and propose a new product concept with relevance to current gaps in pediatric *Siddha care*. They will consider workflow, roles, and potential innovations for better patient outcomes.

Instructions to Students (First 30 Minutes): Teacher will explain the basic requirements of a pediatric *Siddha* pharmaceutical unit, including equipment, space utilization, workflow planning, hygiene protocols, and staff roles. Students will also be introduced to market research strategies such as need-gap analysis and customer profiling to identify pediatric care gaps that can be addressed with new *Siddha formulations.*

Students’ Activities (Next 120 Minutes):

Step – 01 (First 60 Minutes): Each group will design a pharmaceutical unit floor plan, identifying zones such as raw material storage, processing, quality testing, packing, and staff workstations. Roles like formulation expert, safety officer, and production assistant will be outlined.
Step – 02 (Next 60 Minutes): Teams will present a brief market analysis identifying gaps in pediatric *Siddha* care (e.g., lack of child-friendly formulations). Based on findings, they will propose a new *Siddha*-based product with intended use, safety considerations, and formulation strategy tailored for children.
Assessment Methods (Final 30 Minutes): Teacher will assess the accuracy and safety of the unit layout, team role definitions, and innovation quality of the product concept. Presentations will be evaluated using a rubric covering layout logic, problem-solution alignment, pediatric relevance, and market feasibility. Peer feedback will be collected on concept clarity and creativity.

Practical Training 24.2 : Regulatory Compliance for *Siddha* Pediatric Pharmaceuticals

Total Duration of the Activity: 2 Hours
This session equips students with the knowledge and skills to understand and apply the regulatory framework governing *Siddha* pediatric pharmaceutical products. The focus is on clinical trial guidelines, labeling regulations, safety and efficacy documentation, and submission procedures for product approval. Through mock submissions, students will gain hands-on experience in aligning traditional formulations with national regulatory expectations.
Instructions to Students (First 20 Minutes): Teacher will introduce the regulatory landscape for *Siddha* pediatric products, highlighting Central Drugs Standard Control Organisation (CDSCO) guidelines, AYUSH pharmacopoeia, labeling norms, and pediatric-specific safety requirements. Students will review sample templates and study key sections such as product description, clinical safety, manufacturing process, labeling, and post-marketing surveillance.
Students' Activities (Next 80 Minutes):
Step – 01 (First 40 Minutes): Each student group will select a pediatric *Siddha formulation* and begin drafting a mock regulatory submission. They will include product profile, safety data, pediatric dose validation, GMP compliance documentation, and proposed labeling.
Step – 02 (Next 40 Minutes): Groups will present their mock submissions to the class, explaining the purpose and significance of each section. Discussions will follow regarding how regulatory compliance ensures pediatric patient safety and product credibility.
Assessment Methods (Final 20 Minutes): Teacher will assess each group's submission using a checklist covering regulatory completeness, relevance of safety and efficacy protocols, and clarity of labeling and documentation. Peer assessment will focus on content clarity, logical organization, and understanding of regulatory objectives.

Practical Training 24.3 : Subsidy Access and Regulatory Compliance for *Siddha* Pediatric Products

Total Duration of the Activities: 3 Hours
This session integrates financial planning and regulatory compliance for pediatric *Siddha* pharmaceutical ventures. Students will explore government schemes that offer

financial aid for AYUSH products, prepare mock applications meeting eligibility and documentation standards, and draft a regulatory compliance checklist involving AYUSH, Food Safety and Standards Authority of India and Central Drugs Standard Control Organization norms. The session aims to simulate real-world startup challenges and empower students with the knowledge to navigate funding and approval systems for *Siddha* pediatric innovations.
Instructions to Students (First 30 Minutes): Teacher will brief students on available government funding schemes (e.g., AYUSH Ministry grants, Start-up India support, SIDBI funding), and walk through regulatory compliance processes involving AYUSH, FSSAI, and CDSCO for pediatric products. Guidelines for mock application and checklist preparation will be shared.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Students will research and compile a list of at least three relevant subsidy programs. Each group selects one, summarizes eligibility and application steps, and prepares a mock grant or subsidy application with supporting documents.
Step – 02 (Next 60 Minutes): Each group will analyze the regulatory process for pediatric *Siddha* products and develop a comprehensive checklist. The checklist must cover clinical safety, efficacy data, labeling, AYUSH license, FSSAI food safety clearance (if applicable), and CDSCO norms where required. Groups will present this checklist in class.
Assessment Methods (Final 30 Minutes): Teacher will assess the quality and completeness of the mock grant applications using a predefined rubric. The regulatory checklist will be evaluated for logical structure, relevance, and completeness. Peer feedback will be encouraged on clarity and practicality of both submissions to promote collaborative learning and refinement.

Practical Training 24.4 : Product Approval, Compliance, and Securing Government Contracts for Pediatric *Siddha* Products

Total Duration of the Activities: 2 Hours
This session trains students in two critical aspects of pediatric *Siddha* pharmaceutical development: creating compliant product labels and leveraging tax incentives in drafting a government contract proposal. Students will simulate preparing a pediatric *Siddha* product label as per AYUSH and labeling standards and will research applicable tax benefits and exemptions. Based on this, they will design a mock proposal for a government contract that demonstrates regulatory and financial viability.
Instructions to Students (First 20 Minutes): Teacher will explain the key components of pediatric *Siddha* product labeling including safety instructions, dosage, and mandatory disclosures. Guidance will also be provided on tax incentives applicable to AYUSH products and how to structure a proposal for government supply contracts. Students will be divided into small teams and given mock products to work with.
Students' Activities (Next 40 + 40 Minutes):
Step – 01 (First 40 Minutes): Each group will create a product label for a pediatric *Siddha formulation.* The label must include ingredient list, dosage, warnings, pediatric suitability marks, and storage instructions. Students will then present their label to peers for critique.
Step – 02 (Next 40 Minutes): Groups will draft a proposal for a government contract. The proposal must cover unit pricing, supply timelines, tax exemptions used, and how these factors contribute to affordability and sustainability. Small group discussions will follow to optimize proposals.
Assessment Methods (Final 20 Minutes): Teacher will assess the product labels using a structured checklist covering compliance, clarity, and completeness. Contract proposals will be reviewed for inclusion of tax benefits, cost justification, and alignment with regulatory standards. Peer feedback will be used to refine both tasks and evaluate team collaboration.

Practical Training 24.5 : Market Research and Export Compliance for *Siddha* Pediatric Products

Total Duration of the Activities: 3 Hours

This combined practical enables students to explore global marketing opportunities for *Siddha* pediatric products through market research, regulatory compliance understanding, and identification of potential export markets. The activity fosters decision-making, policy awareness, and international business readiness in a *Siddha* healthcare context.

Instructions to Students (First 30 Minutes): Teacher will introduce the session by outlining global *Siddha* product demand trends, key export documentation Good Manufacturing Practices(GMP), International Organization for Standardization (ISO) , Central Drugs Standard Control Organization(CDSCO), and region-specific considerations. Students will be divided into three teams to explore market demand, prepare compliance documentation, and identify suitable export partners in selected regions.

Students' Activities (Next 120 Minutes):

Step – 01 (Next 60 Minutes): Each group will research global demand zones for *Siddha* pediatric products by analyzing alternative medicine trends and pediatric needs in regions like Southeast Asia or Europe. They will draft a demand report with justifications and simultaneously create a compliance checklist detailing certifications, safety norms, and pediatric labeling required for exports.

Step – 02 (Next 60 Minutes): Groups will develop a market profile for a selected international region, assessing *Siddha* compatibility, regulatory feasibility, and business viability. They will identify potential partners like AYUSH clinics or distributors and present their findings. Peer feedback will follow to help refine global entry strategies and evaluate product-market fit effectively.

Assessment Methods (Final 30 Minutes): Teacher will assess the clarity, relevance, and strategic depth of each group's demand report, compliance checklist, and market profile presentation. Evaluation will include accuracy, international market insight, and real-world applicability. Peer feedback will assess teamwork, communication, and collaboration effectiveness.

Practical Training 24.6 : Export Strategy and Digital Marketing for *Siddha* Pediatric Pharmaceuticals

Total Duration of the Activity: 2 Hours

This practical session combines the development of a robust export strategy with the design of a digital marketing plan for *Siddha* pediatric pharmaceutical products. Students will first create a mock export strategy covering packaging, temperature-sensitive logistics, and international compliance. They will then explore government incentives and formulate a digital outreach plan using global health platforms and social media to promote their products internationally.

Instructions to Students (First 30 Minutes): The teacher will guide students through the essentials of *Siddha* pharmaceutical export strategy, emphasizing international regulations, customs documentation, and transport logistics. Students will be divided into small teams and assigned the task of preparing both an export plan and a marketing strategy for pediatric *Siddha formulations*. Guidance on identifying government incentives will be provided.

Students' Activities (Next 60 Minutes):

Step – 01 (First 30 Minutes): Each team will outline an export strategy, including packaging materials, cold chain logistics, customs documentation, and international standards. They will consider destination-specific trade routes and complete a draft of their strategy for group discussion.

Step – 02 (Next 30 Minutes): Students will research and list export-related incentives such as tax rebates or subsidies, then design a basic digital marketing campaign. They will choose appropriate platforms (e.g., global health forums, Instagram, YouTube) and develop content themes for international promotion of *Siddha* pediatric products.
Assessment Methods (Final 30 Minutes): Teacher will assess students using a structured rubric evaluating their export plan, understanding of regulatory logistics, and creativity in digital marketing design. Students will present their marketing approach and export outlines, followed by peer feedback. Evaluation will emphasize practicality, regulatory accuracy, and audience engagement strategy.

Practical Training 24.7 : Designing Telemedicine and Health Tracking Tools for *Siddha* Pediatric Care

Total Duration of the Activity: 2 Hours
This practical session integrates technology with traditional *Siddha* care by guiding students in designing two digital tools: a telemedicine platform and a mobile health-tracking app tailored for pediatric *Siddha* services. The telemedicine prototype should support virtual consultations, symptom logs, and follow-up scheduling. The mobile app mock-up will offer features like diet tracking, daily routine reminders, and *Siddha* wellness suggestions, promoting continuous care at home.
Instructions to Students (First 30 Minutes): The teacher will introduce the concepts of digital *Siddha* healthcare, focusing on teleconsultation principles, parent-child user interfaces, and mobile wellness tracking. Students will be grouped into teams and assigned two main tasks: (1) creating a prototype of a *Siddha* telemedicine platform, and (2) developing a health app wireframe incorporating *Siddha*-based daily care features.
Students' Activities (Next 60 Minutes):
Step – 01 (First 30 Minutes): Each group will design and present a telemedicine prototype enabling virtual pediatric consultations. Key elements include secure login, symptom tracking, consultation log, and follow-up reminders. They will also conduct a role-play demo simulating a virtual consultation to test the platform's functionality and parent accessibility.
Step – 02 (Next 30 Minutes): Students will design a wireframe of a mobile app aimed at parents, featuring child health tracking tools aligned with *Siddha principles*—daily regimen monitoring, dietary logs, and health practice reminders. Each group will simulate app usage through a demonstration showcasing parental engagement and child wellness monitoring.
Assessment Methods (Final 30 Minutes): The teacher will evaluate students' prototypes and app designs using a structured checklist focusing on innovation, *Siddha* integration, usability, and practicality. Role-play demonstrations will be assessed on clarity, coherence, and functionality of features. Peer feedback will be encouraged to refine user-centered design thinking.

Practical Training 24.8 : Designing Pediatric *Siddha Wellness* Centers and School Wellness Programs

Total Duration of the Activity: 3 Hours
In this session, students will conceptualize and design *Siddha* Pediatric Wellness Centers and *Siddha*-based School Wellness Programs focusing on preventive pediatric care. The activity aims to integrate traditional *Siddha* wellness principles (e.g., *naal ozhukkam,* seasonal regimen, food practices) into infrastructure planning and community education. Students will work in groups to prepare spatial layouts, service blueprints, and school-based intervention modules.
Instructions to Students (First 30 Minutes): The teacher will introduce models of wellness centers and school health programs with relevance to *Siddha principles.* Students

will receive planning templates and brainstorm areas like layout planning, health services, *Siddha* regimen integration (e.g., herbal gardens, Varmam, yoga), and educational materials for schools. Groups will be guided to divide tasks for wellness center and school program components.
Students' Activities (Next 120 Minutes):
Step – 01 (First 60 Minutes): Each group will design a *Siddha* Pediatric Wellness Center layout, including zones for herbal therapy, dietary consultation, Varmam space, yoga hall, parent education area, and child play wellness. They will define staffing models, resource needs, and service schedules. A rough sketch or digital layout with functional descriptions will be created.
Step – 02 (Next 60 Minutes): Students will develop a School *Siddha* Wellness Program tailored for 3 different age categories (pre-school, primary, adolescent). The program will include daily wellness routines, dietary charts, *Siddha*-based hygiene practices, and screening checklists. A presentation module will be prepared for teacher or parent orientation with preventive care messages.
Assessment Methods (Final 30 Minutes): Teacher will evaluate center designs and school wellness programs using a design rubric focused on creativity, practicality, and integration of *Siddha principles*. Group presentations will be assessed for clarity, feasibility, and innovation. Peer assessment will support reflective learning on collaborative efforts and application of *Siddha* wellness concepts.

Experiential learning Activity

Experiential-Learning 24.1 : Field Visit and Simulation on Pediatric *Siddha* Formulation Design

Total Duration of the Activities: 4 Hours
This combined activity begins with a field visit to a *Siddha* pharmaceutical unit where students observe each step in pediatric drug production—from raw material procurement to quality control and Good Manufacturing Practice(GMP)-compliant packaging. Students then participate in a simulation to design a pediatric-friendly *Siddha formulation*, considering safety, palatability, regulatory requirements, and packaging innovations. The activity culminates in group presentations justifying their product designs.
Instructions to Students (First 20 Minutes): Observe the full pharmaceutical manufacturing workflow, focusing on pediatric-specific protocols for safety and quality. During the simulation, select appropriate herbal ingredients, determine dosage suitable for children, and choose a palatable form (e.g., syrup, granules). Ensure your packaging design is safe and child-compliant. Prepare to present your mock formulation plan to peers.
Students' Activities
Step – 01 (70 Minutes): Write a Reflective Report based on your field visit. Document the infrastructure, raw material sourcing, processing equipment, quality checks, and packaging standards, with special focus on GMP protocols and pediatric formulation considerations.
Step – 02 (70 Minutes): In teams, design a mock *Siddha formulation* for pediatric use. Select ingredients based on safety and therapeutic value, determine age-appropriate dosage, and propose a formulation form (e.g., syrup, granules) with suitable packaging. Ensure all elements are aligned with pediatric preferences and safety norms.
Step – 03 (60 Minutes): Present your formulation plan to peers, explaining your rationale for ingredient choice, dosage determination, form selection, and packaging. Highlight how your design enhances palatability, safety, and therapeutic compliance in children. Engage in discussion and answer peer queries.
Assessment (Final 20 Minutes): Teacher will assess students using a rubric that evaluates the Reflective Report (clarity, observation depth), the formulation plan

(compliance, innovation, safety), and presentation (justification, peer interaction, and coherence). Constructive peer feedback will also be considered during evaluation.

Experiential-Learning 24.2 : Strategic Launch Planning for Pediatric *Siddha* Product

Total Duration of the Activities: 4 Hours

This experiential learning begins with an in-depth analysis of a real-world pediatric *Siddha* product launch. Students study packaging, branding, marketing, and distribution strategies that led to its success. Drawing from these insights, they work in teams to develop and present a comprehensive launch plan for a hypothetical new pediatric *Siddha* product, blending traditional *Siddha* principles with contemporary market engagement techniques.

Instructions to Students (First 20 Minutes): Carefully review the assigned case study detailing the launch of a successful *Siddha* pediatric product. Pay attention to branding, packaging compliance, customer engagement techniques, and distribution strategy. Prepare to apply these findings in formulating a new product launch plan aligned with *Siddha principles* and modern pediatric consumer needs.

Students' Activities

Step – 01 (70 Minutes): Collaboratively brainstorm a launch strategy for a new pediatric *Siddha product.* Define the product's identity, packaging design, labeling in compliance with *Siddha* and regulatory standards, and establish an effective distribution plan tailored for urban and rural markets.

Step – 02 (70 Minutes): Design integrated marketing strategies using both traditional methods (e.g., health camps, school outreach) and digital platforms (e.g., social media, online parenting forums). Focus on child and parent engagement, product education, and trust-building aligned with *Siddha* philosophy.

Step – 03 (60 Minutes): Present your strategic launch plan to the class, explaining how each component supports successful market entry and pediatric compliance. Participate in a reflective peer discussion, critique other teams' plans constructively, and refine your proposal based on feedback.

Assessment (Final 20 Minutes): Teacher will assess students based on a rubric evaluating case study insight application, strategic plan coherence, creativity in packaging and marketing, and quality of presentation. Peer feedback and engagement in group discussion will contribute to the final evaluation.

Experiential-Learning 24.3 : Model Project Report Preparation for Government Subsidies

Total Duration of the Activities: 4 Hours

In this workshop, students will explore government schemes that support *Siddha* healthcare projects. With guided faculty input, they will learn how to draft a complete model project report including objectives, budget, impact, and required documentation. Each student or group will complete a mock subsidy application to promote pediatric *Siddha* services such as clinics, child formulations, or educational initiatives, followed by peer presentations and critique.

Instructions to Students (First 30 Minutes): Research current government healthcare subsidy programs applicable to *Siddha* or AYUSH sectors. Select one suitable program and review its objectives and eligibility criteria. Begin outlining your proposed *Siddha* pediatric healthcare initiative, focusing on innovation, accessibility, or clinical advancement.

Students' Activities

Step – 01 (60 Minutes): Draft the core project proposal covering background, objectives, methodology, target population, expected outcomes, and relevance to pediatric *Siddha care*. Design a basic budget, identify required documentation, and align the proposal with the objectives of the selected government scheme.

Step – 02 (60 Minutes): Complete a mock government application form using provided templates. Attach your project draft, budget sheet, timeline, and compliance checklist. Ensure all sections meet submission standards and reflect a feasible, impactful pediatric *Siddha* project.
Step – 03 (60 Minutes): Present your finalized model project report and completed application to your peers. Highlight how the subsidy would enhance *Siddha* pediatric care. Receive and offer peer feedback, focusing on project clarity, alignment with scheme guidelines, and innovation.
Assessment (Final 30 Minutes): Teacher will assess the model reports using a checklist for clarity, completeness, alignment with scheme criteria, and feasibility. Peer feedback on presentation, innovation, and subsidy alignment will also be considered in final evaluation.

Experiential-Learning 24.4 : Regulatory Case Analysis of Approved *Siddha* Pediatric Products

Total Duration of the Activities: 4 Hours
This case-based experiential learning activity introduces students to the regulatory landscape of *Siddha* pediatric product approval. Working in groups, students will study real-world case files describing the journey from product formulation to market authorization. They will identify regulatory hurdles, evaluate strategic solutions adopted, and map compliance milestones. The session culminates in group presentations and reflective reports, reinforcing the role of regulatory adherence in public health and safety.
Instructions to Students (First 20 Minutes): Carefully review the assigned *Siddha* pediatric product case, focusing on formulation development, safety trials, documentation, and compliance audits. Pay special attention to challenges encountered and how they were resolved. Prepare to collaborate in your group to dissect the regulatory process and reflect on its broader significance.
Students' Activities
Step – 01 (70 Minutes): Analyze the regulatory journey of the case product. Identify key milestones—formulation registration, safety evaluation, clinical validation, and market authorization. Document encountered challenges such as safety concerns or incomplete data and note the corrective strategies used to meet regulatory expectations.
Step – 02 (70 Minutes): Create a presentation summarizing your group's analysis. Clearly outline the regulatory steps followed, problems resolved, and implications for product safety and credibility. Include recommendations for best practices in future *Siddha* pediatric product development and approval.
Step – 03 (60 Minutes): Individually or in groups, write a Reflection Report capturing your understanding of the effort, time, and multidisciplinary coordination required in regulatory compliance. Emphasize how these practices contribute to public trust, market readiness, and sustained quality in *Siddha* pediatric healthcare.
Assessment (Final 20 Minutes): Teacher will assess students' presentations using a rubric focused on clarity, regulatory insight, and application of learning. Reflective Reports will be evaluated for depth of understanding and articulation of regulatory value. Group discussion participation will also be reviewed to gauge comprehension and engagement.

Experiential-Learning 24.5 : Field Visit and Reflection on *Siddha* Pediatric Product Export Compliance

Total Duration of the Activities: 3 Hours
This activity offers students direct exposure to the international export practices of *Siddha* pediatric products by visiting an export agency or *Siddha* pharmaceutical unit. Students will observe the complete workflow including quality control, packaging, documentation, and regulatory compliance Good Manufacturing Practice (GMP), International Organization for Standardization (ISO),World Health Organization - Good Manufacturing Practices (WHO-GMP). They will reflect on how these practices

ensure safety, standardization, and global acceptance. The session ends with a collaborative discussion to compare insights and reinforce learning.
Instructions to Students (First 20 Minutes): During the visit, observe each step of the export process—documentation, labeling, quality control, and packaging. Identify certifications (e.g., GMP, WHO-GMP) and standards used for pediatric *Siddha products*. Interact with staff to understand practical applications of quality and safety protocols. Take detailed notes for your report and discussion.
Students' Activities
Step – 01 (70 Minutes): Write a Reflective Report outlining the observed export stages, including infrastructure, documentation standards, labeling, and quality control protocols. Emphasize how these ensure global compliance and safety for pediatric *Siddha products*. Reflect on the challenges and benefits of maintaining export standards.
Step – 02 (70 Minutes): Participate in a peer discussion to share field visit observations. Analyze how international compliance frameworks enhance credibility and access to *Siddha* healthcare globally. Discuss best practices observed, gaps noted, and propose ways to improve export readiness of *Siddha* pediatric units.
Assessment (Final 20 Minutes): Teacher will assess students' Reflective Reports using a structured checklist and evaluate their participation in peer discussions based on clarity, insight, and understanding of export compliance and quality standards in *Siddha* pediatric healthcare.

Experiential-Learning 24.6 : Field Visit to *Siddha* Pediatric Product Export Unit

Total Duration of the Activities: 3 Hours
This activity offers students a field-based learning opportunity at a *Siddha* pharmaceutical export agency or manufacturing unit. The visit enables students to witness firsthand the international trade processes of pediatric *Siddha products*, focusing on documentation, packaging, quality assurance, and regulatory compliance Good Manufacturing Practice, International Organization for Standardization (ISO),World Health Organization - Good Manufacturing Practices (WHO-GMP). Students will then prepare a reflective report and participate in peer discussion to analyze how these standards support safety, efficacy, and global credibility.
Instructions to Students (First 20 Minutes): Carefully observe each stage of the export process—from raw material verification, quality control, packaging, to documentation for international shipment. Pay close attention to global compliance protocols like GMP, ISO, WHO-GMP, temperature control, and labeling standards. Take notes for your reflective report and upcoming group discussion.
Students' Activities
Step – 01 (70 Minutes): Prepare a detailed Reflective Report describing the export process you observed. Include key areas such as quality assurance procedures, regulatory certifications, documentation standards, and packaging protocols. Explain how these contribute to international acceptance and safety of pediatric *Siddha products.*
Step – 02 (70 Minutes): Participate in a structured peer discussion. Share your reflections and compare insights about quality practices and global trade compliance. Discuss how these practices build global trust in *Siddha pediatric formulations* and suggest areas for enhancement or innovation.
Assessment (Final 20 Minutes): Teacher will evaluate students based on clarity, accuracy, and depth of their Reflective Reports using a checklist. Peer feedback during the discussion will also be considered in assessing engagement and understanding of international export standards.

Experiential-Learning 24.7 : Designing a Pediatric *Siddha* Wellness Center Model

Total Duration of the Activities: 3 Hours

This session integrates real-world observation with applied design thinking. Students begin with a guided field visit to a *Siddha* wellness center, observing spatial arrangements, patient flow, and wellness services. Using these insights, they will participate in a workshop to design a model pediatric *Siddha* wellness center. The blueprint should support holistic child care, integrating therapy, nutrition, and play in a child-friendly layout aligned with *Siddha principles.*

Instructions to Students (First 20 Minutes): During the field visit, observe how space is allocated for consultation, therapy, and preventive care. Note how children are managed, the comfort of the environment, and patient flow efficiency.

In the workshop, use these insights to create a blueprint of a pediatric *Siddha wellness* center. Include zones for nutrition, *Siddha therapies,* waiting areas, and play spaces, considering both therapeutic and preventive services.

Students' Activities

Step – 01 (70 Minutes): Collaborate with your group to design the center's layout and service flow. Allocate space for *Siddha consultation,* pediatric therapies, nutritional counseling, recreational zones, and hygiene areas. Justify your design based on observed best practices, child psychology, and *Siddha wellness* principles.

Step – 02 (70 Minutes):Present your model wellness center blueprint to the class, explaining spatial logic, how services are structured for pediatric care, and integration of *Siddha* elements. Receive and incorporate peer feedback to refine your center's design for better functionality and child engagement.

Assessment (Final 20 Minutes):Teacher will assess each group's blueprint using a checklist that evaluates functionality, child-friendliness, *Siddha* integration, and clarity of service planning. Peer assessments will contribute to evaluating the practicality and innovation of the presented wellness center model.

Experiential-Learning 24.8 : *Siddha* Wellness Program Design for Schools

Total Duration of the Activities: 3 Hours

In this session, students will collaboratively design a school-based *Siddha* wellness program focusing on nutrition, breathing exercises, and mindfulness. Teams will create structured routines tailored for schoolchildren, ensuring simplicity, consistency, and age appropriateness. Students will then simulate introducing the wellness initiative to school staff, using role-play to enhance communication and advocacy skills. The session concludes with feedback, documentation of the plan, and critical reflection on its real-world applicability.

Instructions to Students (First 20 Minutes): Review the goal of integrating *Siddha* wellness into schools. Draft a structured program with daily and weekly activities such as *Siddha* diet guidance, simple breathing exercises, and mindfulness techniques. Prepare to present this plan and simulate its introduction to school staff through role-play.

Students' Activities

Step – 01 (70 Minutes): Teams will design the *Siddha* wellness program, incorporating diet recommendations from classical texts, age-appropriate breathing practices and mindfulness rituals such as morning silence or guided meditation. The program must include objectives, frequency, materials, and evaluation methods.

Step – 02 (70 Minutes): Each group will present their program in a role-play format, simulating its proposal to school staff. They will highlight benefits, implementation logistics, and expected health outcomes. After the presentation, peers will provide structured feedback on clarity, feasibility, and cultural relevance.

Assessment (Final 20 Minutes): Teacher will assess the activity using a structured checklist focusing on program structure, *Siddha* integration, clarity, and presentation skills. Peer feedback will contribute to understanding engagement and innovation. Each student team will submit a brief summary and reflection on potential impact and implementation strategies.

Modular Assessment	
Assessment method	**Hour**
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 6C. Section A – 25 Marks This modular assessment evaluates students' ability to apply Siddha pharmaceutical, regulatory, and entrepreneurial principles in pediatric care through case-based problem-solving. Students will work on practical case scenarios involving pediatric Siddha product development, market analysis, export strategy, or digital wellness innovations. Performance will be evaluated using structured checklists and real-world relevance. Instructions to Students: Students will receive a practical case scenario involving pediatric Siddha product development, telemedicine launch, or export planning. Analyze the situation, propose a solution with regulatory and market alignment, and justify your strategy. Students performance will be evaluated based on your response to guided questions and checklist-based task completion. Instructions to Teachers: Design realistic case scenarios covering Module 24 subtopics. Use structured checklists to assess student response accuracy, regulatory awareness, innovation, and pediatric relevance. Encourage students to apply practical knowledge of Siddha manufacturing, wellness delivery, and digital health integration. Provide formative feedback on strategic clarity, feasibility, and public health alignment. Mark Distribution: Marks are distributed as follows: Clinical or commercial case analysis and proposed solution carry 10 marks. Accuracy of regulatory or technical checklist completion is allotted 7 marks. Integration of Siddha principles with pediatric needs and market strategy holds 5 marks. Presentation clarity and logical reasoning during response earn 3 marks. & Section – B. 25-marks. This modular assessment evaluates students' hands-on performance in solving practical challenges related to Siddha pediatric entrepreneurship, pharmaceutical setup, regulatory navigation, and innovation deployment. Through observed demonstrations and guided assistance tasks, students will engage in real-life problem-solving exercises covering drug design, subsidy utilization, export strategy, or digital Siddha wellness solutions. Instructions to Students: Students will be assigned a practical problem related to Siddha pediatric drug development, wellness delivery, or export logistics. Perform a live or simulated demonstration to propose a step-wise solution. Students may receive structured assistance prompts. Their performance will be evaluated based on precision, workflow understanding, compliance awareness, and innovation. Instructions to Teachers: Prepare practical scenarios from Module 24 involving pediatric Siddha product formulation, unit setup, telemedicine services, or policy-linked innovations. Observe the student's problem-solving approach, decision logic, and application of *Siddha* principles. Provide minimal assistance prompts and evaluate their actions using structured observation checklists and outcome-based performance criteria. Mark Distribution: Marks are distributed as follows: Execution of Demonstration and Application of Problem-Solving Skills carry 10 marks. Responsiveness to Guidance and Step-wise Workflow Completion hold 7 marks. Accuracy of Technical or Regulatory Actions performed is allotted 5 marks. Observation of Confidence, Professionalism, and Clarity during Performance earns 3 marks. (Or)	4

Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment (25 Marks).	

Paper No : 4 Essentials in Pediatrics

Semester No : 3

Module 25 : Neonatology, Immunization and Hematology

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

Describe normal neonatal physiology and management of common newborn conditions.
Describe the principles of immunology and immunization in pediatric care.
Outline vaccine types, schedules, routes, and special immunization considerations.
Identify clinical presentations and management strategies for pediatric anemias.
Discuss hemorrhagic, thrombotic, and platelet disorders in childhood.
Integrate neonatal, immunization, and hematological knowledge in pediatric healthcare.

M 25 Unit 1 Neonatology in Pediatric Care

25.1.1 Normal Newborn Physiology – Assessment of healthy newborns, identification of normal physical characteristics, vital signs, Apgar score, thermoregulation, initiation of breastfeeding, routine newborn care.
25.1.2 Prematurity and Low Birth Weight – Clinical features of prematurity, classification by birth weight and gestational age, early interventions, feeding challenges, thermoregulation, infection risks, growth monitoring.
25.1.3 Neonatal Jaundice and Its Management – Causes of jaundice, physiological vs. pathological types, bilirubin metabolism, risk factors, Kramer's scale, phototherapy, complications, Siddha supportive measures.
25.1.4 Neonatal Respiratory Disorders – Neonatal respiratory distress syndrome, meconium aspiration, transient tachypnea, respiratory assessment signs, diagnostic tools, oxygen therapy, Continous positive airway pressure (CPAP), supportive care.
25.1.5 Neurological Conditions in Neonates – Neonatal seizures, hypoxic-ischemic encephalopathy, intracranial hemorrhage, abnormal tone, neuroimaging, anticonvulsants, Siddha neurotonics, long-term developmental follow-up.

References: 39,40,43,44,64,67,104,110,121

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe normal newborn physiology, including assessment, vital signs, and characteristics.	1	Lecture	CK	Know	L&GD,L &PPT
CO1,CO2,CO3	Perform newborn physical examination and record standard observations.	2	Practical Training 25.1	PSY-GUD	Knows-how	D-BED,C_L,PAL
CO2,CO3,CO6	Perform jaundice assessment and simulate phototherapy confidently and safely.	2	Practical Training 25.2	PSY-MEC	Knows-how	SIM,D-BED
CO2,CO3,CO6	Identify neonatal distress signs and administer oxygen therapy safely.	2	Practical Training 25.3	PSY-MEC	Knows-how	SIM,CBL,D-BED
CO1,CO4,CO5	Identify the Role of compassionate care in managing newborn	3	Experiential-Learning 25.1	AFT-VAL	Does	PL,SIM,D-M
CO1,CO4,CO5	Demonstrate safe setup and monitoring of phototherapy for neonatal jaundice	3	Experiential-Learning 25.2	AFT-VAL	Does	D,SIM
CO1,CO4,CO5	Perform neonatal oxygen and Continuous Positive Airway Pressure (CPAP) support procedures using clinical judgment	3	Experiential-Learning 25.3	AFT-VAL	Know	D,CBL,SIM
CO1,CO2,CO5	Describe clinical presentation, complications, and management of preterm, low birth weight neonates, jaundice.	1	Lecture	CC	Knows-how	L&GD,L &PPT
CO1,CO4	Discuss diagnosis, clinical signs, and management of pediatric platelet disorders.	1	Lecture	CC	Knows-how	DIS,C_L,L

M 25 Unit 2 Basic Concepts of Immunization

25.2.1 Concept of Immunity – Innate immunity, adaptive immunity, immune cell types, antigen recognition, primary and secondary responses, barriers to infection,

immune memory.
25.2.2 Immunodeficiency Disorders – Primary immunodeficiencies, secondary immunodeficiencies, recurrent infections, growth failure, diagnostic criteria, immunoglobulin testing, early screening tools.
25.2.3 Basics of Immunization – Active immunity, passive immunity, role of adjuvants, seroconversion, herd immunity, vaccine efficacy, immunization schedules, booster concepts.
25.2.4 Types, Route, and Storage of Vaccination – Live vaccines, killed vaccines, toxoid vaccines, subunit vaccines, intramuscular, subcutaneous, oral routes, cold chain, vaccine vial monitor.
25.2.5 Principle and Adverse Events Following Immunization – Immunization mechanisms, adverse event classification, monitoring systems, minor and serious reactions, caregiver education, documentation, safety surveillance.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe immunity concepts, immunodeficiency disorders, and immunization principles for disease prevention.	1	Lecture	CC	Know	L&PPT ,DIS,L
CO2,CO3,CO6	Demonstrate pediatric vaccine administration by appropriate route and technique.	2	Practical Training 25.4	PSY-MEC	Knows-how	PAL,D-M,SIM
CO1,CO3,CO6	Apply screening tools to identify immunodeficiency and adjust immunization plans.	2	Practical Training 25.5	CAP	Knows-how	CBL,SIM
CO1,CO3,CO6	Compare immune responses and evaluate relevance in pediatric care.	2	Practical Training 25.6	CC	Knows-how	DIS,TUT, PAL
CO1,CO4,CO5	Apply immunization guidelines to pediatric case scenarios for appropriate vaccine planning	3	Experiential-Learning 25. 4	CAP	Know	DIS,PER, SIM
CO1,CO4,CO5	Apply clinical skills and knowledge to differentiate, prepare, and administer active and passive immunizations safely	3	Experiential-Learning 25. 5	CAP	Know	CD,SIM, D

CO1,CO4,CO5	Demonstrate vaccine classification, reconstitution, administration, and cold chain maintenance techniques	3	Experiential-Learning 25.6	CAP	Know	SIM,D,W
CO1,CO4	Identify vaccine types, administration routes, storage, immunization principles, and adverse events.	1	Lecture	CAN	Know	C_L,L&GD

M 25 Unit 3 Immunization Schedule According to IAP/National Immunization Program

25.3.1 BCG, Hepatitis B Vaccine – Dose schedules, age of administration, routes, catch-up immunization, contraindications, post-vaccination care, prevention of tuberculosis and hepatitis B.
25.3.2 Mumps, Measles, Rubella (MMR) Vaccine – Recommended age, number of doses, spacing intervals, adverse effects, outbreak control, contraindications, immunization in delayed cases.
25.3.3 DPT, Meningococcal Vaccine – Diphtheria, pertussis, tetanus dose schedule, booster timing, meningococcal conjugate vaccine, routine administration, infection control outcomes.
25.3.4 Hib, HPV Vaccine – Haemophilus influenzae type B and human papillomavirus vaccine schedules, cancer prevention, eligibility criteria, catch-up strategy, safety profile.
25.3.5 Immunization in Special Situations – Vaccines for Japanese encephalitis, cholera, typhoid, COVID-19, minimum age limits, contraindications, dose adjustments, outbreak response, travel requirements.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe BCG, Hepatitis B, and MMR vaccines, including doses and schedules.	1	Lecture	CC	Know	L,DIS
CO1,CO4,CO5	Interpret and explain vaccination schedules and catch-up protocols in pediatric care.	2	Practical Training 25.7	CC	Knows-how	PL,ML,GBL
CO1,CO4,CO6	Describe immunization protocols for special pediatric cases and age-specific vaccine recommendations.	2	Practical Training 25.8	CC	Knows-how	TBL,ML,TUT
CO1,CO4,CO5	Apply immunization guidelines to develop customized vaccination plans for diverse pediatric scenarios	4	Experiential-Learning 25.	PSY-ADT	Know	PAL,W,CBL,DIS

			7			
CO1,CO4	Describe Diphtheria, Pertussis, and Tetanus (DPT), Meningococcal, Haemophilus influenza type b (Hib), and Human Papillomavirus (HPV) vaccines, including schedules and impact.	1	Lecture	CC	Know	L&GD,C_L
CO1,CO4	Describe immunization protocols for special cases, including age requirements and considerations.	1	Lecture	CC	Knows-how	L&GD,C_L

M 25 Unit 4 Hematological Disorders

25.4.1 Introduction to Hematopoiesis and Anemia – Blood cell formation, hematopoietic stem cells, physiological anemia in infancy, anemia classification, red cell indices, diagnostic approach.
25.4.2 Inadequate Production – Iron deficiency anemia, congenital marrow failure, aplastic anemia, erythropoiesis defects, nutritional causes, laboratory evaluation, management principles.
25.4.3 Hemolytic Anemia and Polycythemia – Hemoglobinopathies, sickle cell disease, thalassemia, hemolysis indicators, neonatal polycythemia, splenomegaly, transfusion protocols, preventive care.
25.4.4 Hemorrhagic and Thrombotic Disorders – Hemophilia A and B, von Willebrand disease, DIC, coagulation cascade, bleeding assessment, clotting studies, therapeutic guidelines.
25.4.5 Platelet Disorders – Immune thrombocytopenia, thrombotic thrombocytopenic purpura, platelet count interpretation, bleeding manifestations, bone marrow evaluation, pharmacologic and supportive treatment.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO5	Describe hematopoiesis, physiological anemia, and diagnostic approaches for anemia types.	1	Lecture	CC	Know	PER,DIS,L
CO2,CO4,CO6	Assess and Manage Strategies for Hemolytic Anemia and Polycythemia	2	Practical Training 25.9	CAN	Knows-how	CBL,LRI
CO2,CO4,CO6	Analyze and manage pediatric platelet disorders using integrative approach.	2	Practical Training 25.1	CAN	Knows-how	CBL,LRI

			0			
CO1,CO4,CO5	Analyze the case studies of pediatric hematological disorders	4	Experiential-Learning 25.8	CAN	Know	PL,CBL
CO1,CO4	Describe hemolytic anemia, polycythemia, bleeding, and clotting disorders' diagnosis and management.	1	Lecture	CS	Know	L&GD,C_L

Practical Training Activity

Practical Training 25.1 : Newborn Physical Examination and Documentation of Normal Parameters

Total Duration of the Activities: 2 Hours
This practical introduces students to structured newborn assessment through hands-on experience. Key parameters include skin tone, vital signs, reflexes like Moro and rooting, and anthropometric measures such as length and head circumference. The focus is on accuracy, clinical confidence, and peer-supported review during simulated or real patient examination.
Instructions to Students (First 20 Minutes): Teacher will demonstrate newborn examination techniques, including vital sign monitoring, reflex evaluation, and anthropometric measurement. Students must observe carefully and review expected normative values. Use the provided checklist to standardize your observations during the hands-on assessment session.
Students' Activities
Step 01 (First 40 Minutes): Each student will conduct a complete physical examination of a newborn (simulated or real) using a checklist. They will assess vital signs, check skin tone, elicit reflexes, and measure birth weight, length, and head circumference. Accuracy and completeness are emphasized for all recorded values.
Step 02 (Next 40 Minutes): Students will pair up to cross-check each other's recorded findings. They will discuss any discrepancies and verify interpretations of neonatal signs. Peer learning will reinforce confidence and clarify errors through reflection and discussion, culminating in a structured peer comparison and group feedback session.
Assessment (Final 20 Minutes): Teacher will assess using a clinical checklist for each student's performance, accuracy of recorded findings, and adherence to the sequence of examination. A short viva will test knowledge of normal neonatal parameters. Peer feedback will help refine observation skills and promote collaborative clinical accuracy.

Practical Training 25.2 : Assessment and Phototherapy Simulation for Neonatal Jaundice

Total Duration of the Activities: 2 Hours
This practical guides students through clinical assessment techniques for neonatal jaundice, emphasizing recognition of skin and scleral discoloration. Simulation includes safe phototherapy setup with eye protection, thermal regulation, and monitoring. Students will formulate care plans that integrate modern guidelines with supportive Siddha

measures like dietary support and herbal hydration options.
Instructions to Students (First 20 Minutes): Teacher will demonstrate jaundice detection methods using blanching techniques on the skin and chest. Students will observe how to safely position phototherapy equipment, apply protective gear, and maintain thermal stability. Review bilirubin physiology and understand Siddha-aligned neonatal care principles during phototherapy.
Students' Activities
Step 01 (First 40 Minutes): Students will assess simulated newborns for visible signs of jaundice. Using clinical mannequins or charts, they will apply blanching techniques and document skin color changes. Under guidance, they will simulate the application of phototherapy—correct positioning, eye shield use, and ambient temperature regulation.
Step 02 (Next 40 Minutes): Students will design an individualized care plan for neonatal jaundice. The plan will include bilirubin monitoring schedules, hydration and feeding strategies, temperature checks, and phototherapy safety. Siddha-based supportive care, such as use of mild herbal decoctions or feeding timing, will be included where relevant.
Assessment (Final 20 Minutes): Teacher will assess students via simulation checklists, focusing on their clinical examination techniques and phototherapy procedure accuracy. The care plan will be reviewed for clarity and completeness. A short viva will test understanding of bilirubin metabolism, treatment thresholds, and integrative neonatal jaundice management.

Practical Training 25.3 : Recognition and Stabilization of Neonatal Respiratory Distress Using Oxygen Therapy

Total Duration of the Activities: 2 Hours
This practical introduces students to the early identification and management of neonatal respiratory distress. Students will observe and simulate clinical signs like chest retractions, grunting, and nasal flaring. They will perform oxygen therapy using hoods and nasal cannulas, and create a structured action plan for neonatal stabilization and monitoring.
Instructions to Students (First 20 Minutes): Teacher will demonstrate simulated cases showing signs of respiratory distress. Students must observe respiratory rate measurement, clinical markers, and oxygen delivery techniques. Prepare to perform these techniques and design an action plan for neonatal stabilization, with emphasis on safe handling, monitoring frequency, and comfort protocols.
Students' Activities
Step 01 (First 40 Minutes): Students will identify and document signs of respiratory distress in simulated neonates. They will practice oxygen delivery techniques using hoods and nasal cannulas, ensuring correct flow rate, positioning, and infant safety. Record findings using structured formats for review and group discussion.
Step 02 (Next 40 Minutes): Students will prepare a detailed clinical action plan for stabilizing neonates with respiratory distress. Plans will include monitoring schedules, escalation criteria, oxygen flow adjustments, and comfort measures like temperature control and minimal handling. Groups will present and justify their plans with peer and teacher input.
Assessment (Final 20 Minutes): Teacher will evaluate students using a checklist on recognition of distress signs and accuracy in oxygen delivery procedures. Action plans will be reviewed for completeness and clinical logic. A short viva will test understanding of neonatal respiratory physiology and emergency care strategies based on observed symptoms.

Practical Training 25.4 : Simulation-Based Practice of Pediatric Vaccine Administration Techniques

Total Duration of the Activities: 2 Hours
This practical trains students to administer vaccines through oral, intramuscular, and subcutaneous routes using simulation models. They will learn age-specific protocols, anatomical site selection, and injection angles. Aseptic measures and child-friendly techniques will be emphasized, along with post-vaccination observation and documentation. Route-based discussion enhances clinical decision-making.
Instructions to Students (First 20 Minutes): Teacher will demonstrate oral, intramuscular, and subcutaneous vaccine administration using models. Students must observe needle selection, angle of entry, and site landmarks. Review age-specific vaccination protocols and prepare to perform all three techniques while maintaining aseptic precautions and ensuring comfort in pediatric care.
Students activities
Step 01 (First 40 Minutes): Students will practice administering vaccines using skill models. They must demonstrate correct anatomical site identification, needle size choice, and route-appropriate technique. Each student will document the rationale for choosing a specific route and injection site based on age, vaccine type, and clinical guidelines.
Step 02 (Next 40 Minutes): In guided small-group discussions, students will evaluate how route selection affects vaccine absorption, immune response, and patient comfort. They will compare the strengths and limitations of oral, intramuscular (IM), and subcutaneous (SC) routes using real-life pediatric care examples and peer feedback to reinforce best practices.
Assessment (Final 20 Minutes): Teacher will assess students using a structured skills checklist for accuracy in site selection, technique, and infection control. A short practical viva will test understanding of route-specific vaccine use, contraindications, and post-vaccination care. Each student must justify their procedural choices during the simulation.

Practical Training 25.5 : Screening for Immunodeficiency and Pediatric Vaccination Planning

Total Duration of the Activities: 2 Hours
This practical session enables students to identify red flag indicators for immunodeficiency through structured pediatric history-taking. Learners differentiate between primary and secondary types and correlate findings with immunization needs. Emphasis is placed on using checklists, simulated profiles, and peer discussion to adjust vaccination protocols appropriately, ensuring safe and effective pediatric care.
Instructions to Students (First 20 Minutes): Teacher will explain how to identify signs of immunodeficiency using structured history-taking. Observe a demonstration on checklist-based screening, focusing on signs such as recurrent infections, poor growth, and familial patterns. Prepare to apply this knowledge in simulated pediatric case scenarios and vaccine decision-making.
Students activities
Step 01 (First 40 Minutes): Students will be provided with 2–3 pediatric case simulations. Each student will use a structured checklist to identify potential indicators of immunodeficiency. They will document relevant history such as repeated antibiotic use, delayed development, or failure to thrive, and classify the immunodeficiency as primary or secondary.

Step 02 (Next 40 Minutes): In peer groups, students will review case findings and determine whether vaccine modification or delay is indicated. They will justify their decision using current pediatric immunization schedules and clinical reasoning. Each group will summarize recommendations and present their rationale during interactive discussion.
Assessment (Final 20 Minutes): Teacher will assess the accuracy and completeness of checklist-based screening. Students will be evaluated through scenario-based discussions on vaccine decisions and their underlying logic. A brief viva will test understanding of immunodeficiency classification and its effect on immunization planning.

Practical Training 25.6 : Understanding Innate and Adaptive Immunity through Clinical Comparison and Debate

Total Duration of the Activities: 2 Hours
This session introduces the core differences between innate and adaptive immunity. Students will compare the cellular and functional components of both systems, including memory, specificity, and speed. The activity culminates in a clinical debate evaluating the dominant role of either immune system in infections and vaccination response, especially in children.
Instructions to Students (First 20 Minutes): Teacher will initiate a focused discussion on immunity basics. Students must review pre-assigned materials on innate and adaptive immune functions. They are expected to contribute to debate preparation by reflecting on childhood illnesses and vaccine action mechanisms using immune components like macrophages, T-cells, and antibodies.
Students activities
Step 01 (First 40 Minutes): Students will participate in a guided comparison of immune mechanisms. They will explore innate components such as neutrophils and natural killer cells and contrast them with adaptive elements like antigen specificity and memory formation in T- and B-cell responses. Students will analyze infection progression and immune timelines.
Step 02 (Next 40 Minutes): A structured classroom debate will follow, with students divided into two teams. One team will argue for the superiority of innate immunity in initial defense, while the other will defend adaptive immunity’s long-term role. Clinical examples and vaccine responses will be cited to strengthen each position.
Assessment (Final 20 Minutes): Teacher will assess students based on participation, clarity of scientific reasoning, and teamwork in both discussion and debate. A short reflective summary will be submitted individually. Evaluation will focus on conceptual clarity, evidence-based argumentation, and communication skills relevant to understanding immune responses in pediatric contexts.

Practical Training 25.7 : Understanding Routine and Catch-up Pediatric Vaccination

Total Duration of the Activities: 2 Hours
This session emphasizes the clinical importance of pediatric vaccines including Bacille Calmette-Guérin (BCG), Hepatitis B, Measles, Mumps, and Rubella (MMR), Diphtheria, Pertussis, and Tetanus (DPT), Meningococcal, Haemophilus influenzae type b (Hib), and Human Papillomavirus (HPV). Students will engage with mobile-based tools, interactive games, and structured case puzzles to explore vaccination timelines, disease prevention, and catch-up protocols. Emphasis is on practical application and peer-supported learning.
Instructions to Students (First 20 Minutes): Teacher will introduce national and World Health Organization (WHO) immunization schedules. Students will explore apps or

posters detailing vaccine timelines and engage in tutorials discussing vaccine type, dose intervals, and disease prevention. Prepare for interactive activities including schedule-matching games and clinical catch-up case puzzles.
Students activities
Step 01 (First 40 Minutes): Students will work in teams using digital flashcards or printed kits to match vaccines like Bacille Calmette-Guérin (BCG), Hepatitis B, and Measles, Mumps, and Rubella (MMR) with their correct age, dosage intervals, and administration routes. Focus will be on standard schedules and practical recall using peer-assistance and mobile tools.
Step 02 (Next 40 Minutes): Using real-life inspired puzzles, students will solve catch-up scenarios involving missed vaccinations. They will determine correct intervals, minimum gaps, and safe re-initiation based on World Health Organization (WHO)/national schedules. Group discussion and feedback will help reinforce applied knowledge and clarify tricky scheduling rules.
Assessment (Final 20 Minutes): Teacher will conduct a rapid-fire quiz covering key vaccine facts and assess team-based puzzle responses. Each student will briefly present one vaccine, explaining its schedule and preventive value. Peer and teacher evaluations will score clarity, accuracy, and clinical relevance using a structured rubric.

Practical Training 25.8 : Immunization Protocols in Special Pediatric Populations

Total Duration of the Activities: 2 Hours
This practical session focuses on understanding and applying immunization schedules for children with special health needs or delayed vaccination histories. Students will evaluate the use of special vaccines such as Japanese Encephalitis (JE), typhoid, cholera, and COVID-19 in clinical scenarios. Using national and World Health Organization (WHO) guidelines, they will propose appropriate vaccine strategies and visualize key recommendations through summary charts.
Instructions to Students (First 20 Minutes): Teacher will introduce special case immunization needs and demonstrate how to access World Health Organization (WHO) and national guidelines. Participate in a tutorial discussion on minimum age, contraindications, and vaccine-specific strategies. Review the mobile app or online resources to be used during scenario analysis.
Students activities
Step 01 (First 40 Minutes): Students will form small groups to analyze clinical case scenarios, such as vaccination for a child recovering from illness, planning catch-up doses for delayed immunization, or pre-travel prophylaxis. Each group will use World Health Organization (WHO)/National Immunization Schedule (NIS) schedules to propose an immunization plan.
Step 02 (Next 40 Minutes): Each group will prepare a visual chart summarizing vaccines like Japanese Encephalitis (JE), cholera, typhoid, and COVID-19, outlining their indications, age restrictions, contraindications, and key precautions. These charts will be presented and peer-reviewed for accuracy and clarity.
Assessment (Final 20 Minutes): Teachers will conduct a structured LAQ to assess understanding of vaccine application in special pediatric scenarios. Each group will present one assigned case and their immunization plan. Peer feedback and teacher evaluation will be used to assess clarity,correctness, and applicability of recommendations.

Practical Training 25.9 : Clinical Evaluation and Integrative Management of Pediatric Hemolytic Anemia and Polycythemia

Total Duration of the Activities: 2 Hours
This session introduces pediatric hemolytic anemia (e.g., thalassemia, sickle cell disease) and polycythemia. Students will examine signs like pallor, splenomegaly, or plethora and assess lab findings like reticulocyte count, peripheral smear, and electrophoresis. Emphasis will be on differential diagnosis and constructing integrated Siddha-modern treatment plans addressing blood disorders in children.
Instructions to Students (First 20 Minutes): Teacher will explain key symptoms and diagnostic parameters of hemolytic anemia and polycythemia. Students must review clinical markers, lab data, and integrative therapeutic options. Focus on classifying types, analyzing severity, and understanding the role of Siddha therapies alongside blood transfusions, iron chelation, or supportive diet.
Students activities
Step 01 (First 40 Minutes): Students will analyze pediatric cases featuring thalassemia and polycythemia. Working in pairs, they will extract history, examine signs like jaundice or headache, and interpret lab results including hemoglobin electrophoresis. They will draft a diagnosis with reasoning and identify overlapping symptoms requiring individualized clinical interpretation.
Step 02 (Next 40 Minutes): Students will prepare a comparative chart highlighting treatment strategies for hemolytic anemia and polycythemia. They will include Siddha remedies (e.g., iron-rich formulations, blood purifiers), modern therapies like hydroxyurea, transfusions, and lifestyle changes. Each group will present their plan to peers with justification based on clinical relevance and Siddha texts.
Assessment (Final 20 Minutes): Teacher will assess clarity and depth of clinical reasoning using observation checklists and a short viva. Evaluation will include lab report interpretation, therapeutic choice, and understanding of pathophysiology. Students must show integration of concepts with modern pediatric protocols and demonstrate logical diagnostic planning and communication skills.

Practical Training 25.10 : Clinical Understanding and Management of Pediatric Platelet Disorders: Immune Thrombocytopenia (ITP) and Thrombotic Thrombocytopenic Purpura (TTP)

Total Duration of the Activities: 2 Hours
This practical introduces students to Immune Thrombocytopenia (ITP) and Thrombotic Thrombocytopenic Purpura (TTP) in children. Through analysis of clinical signs and laboratory findings such as platelet counts and smear results, students will diagnose cases, explore integrative treatment strategies, and compare Siddha and modern perspectives on therapy, complications, and long-term care planning.
Instructions to Students (First 20 Minutes): Teacher will explain clinical features of pediatric platelet disorders, including petechiae, mucosal bleeding, and ecchymosis. Students must review platelet counts, peripheral smear reports, and Siddha interpretations of bleeding tendencies. Prepare to engage in group-based analysis of clinical cases with attention to prognosis, treatment, and integrative reasoning.
Students activities
Step 01 (First 40 Minutes): In assigned groups, students will analyze clinical scenarios of pediatric Immune Thrombocytopenia (ITP) and Thrombotic Thrombocytopenic Purpura (TTP) . They will interpret lab results, document symptoms, and confirm the diagnosis. Using both modern clinical reasoning and Siddha pathophysiology, students will propose possible treatment strategies suitable for integrative management of these hematological conditions.

Step 02 (Next 40 Minutes): Students will collaboratively develop a comparative chart summarizing key differences between Immune Thrombocytopenia (ITP) and Thrombotic Thrombocytopenic Purpura (TTP) .The chart will include Siddha and modern interpretations of symptoms, diagnosis, treatment options, and prognosis. Each group will briefly present their findings and receive feedback from peers and the teacher for clinical accuracy and depth.
Assessment (Final 20 Minutes): Teacher will assess student participation and understanding through group discussions, diagnostic interpretation, and treatment planning. A short viva will test clarity on platelet disorder classification, therapeutic approaches to bleeding conditions, and integration with modern lab-based decision-making. Evaluation will follow a structured checklist for knowledge, analysis, and communication skills.

Experiential learning Activity

Experiential-Learning 25.1 : Simulation of Normal Newborn Assessment

Total duration of the activities 3 hours
Students will participate in a simulation-based session using newborn mannequins to practice clinical assessment of a healthy neonate. They will learn to evaluate key parameters such as heart rate, respiratory rate, skin color, reflexes, and temperature. The teacher will first demonstrate the correct techniques, after which students will apply their skills in simulated settings, document findings, and present them for group discussion and feedback.
Instructions to Students (First 30 Minutes) Teacher will demonstrate standard newborn assessment methods. Students must observe key techniques for evaluating skin tone, posture, muscle tone, breathing pattern, heart rate, temperature, and reflexes. They will then begin individual practice using neonatal mannequins and record their observations against normal clinical ranges.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will examine the newborn mannequins individually or in pairs. They will record physical and vital sign observations, including posture, respiration, temperature, heart rate, skin color, and reflex responses. These will be compared to established neonatal norms to identify any deviations.
Step 02 (Second 60 Minutes) Students will present their findings to peers, highlighting normal and abnormal signs. They will discuss how clinical judgments are made based on observed signs and share reflections on any difficulties faced during simulation. Strategies to improve assessment accuracy will be collaboratively developed.
Assessment (Final 30 Minutes) Teacher will assess students using Mini-CEX during simulation performance. A checklist will be used to evaluate proper technique, observation accuracy, and confidence. Peer feedback and reflective notes will also be considered, emphasizing precision, clarity, and application of knowledge to neonatal clinical assessment.

Experiential-Learning 25.2 : Simulation and Monitoring of Phototherapy in Neonatal Jaundice Management

Total duration of the activities 3 hours
Students will participate in a simulation-based hands-on training session focusing on the setup and monitoring of phototherapy equipment used in neonatal jaundice. The session includes teacher demonstration, safety protocols, bilirubin level interpretation, hydration and temperature monitoring, and patient positioning. Students will practice under supervision and engage in reflective discussions on early intervention and complication prevention.
Instructions to Students (First 30 Minutes) Teacher will demonstrate phototherapy unit assembly, infant positioning, bilirubin monitoring using clinical charts, and safety

precautions including eye protection, hydration monitoring, and temperature regulation. Students must observe all steps and prepare to practice each aspect under guidance while ensuring safe and effective therapy setup.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will practice each step of phototherapy setup using simulation models. They will record procedures including bulb distance calibration, safety checks, infant positioning, bilirubin chart tracking, and hydration/temperature monitoring. Each student will complete a checklist to ensure all clinical and safety criteria are met.
Step 02 (Second 60 Minutes) Students will reflect on the significance of early jaundice detection and treatment. In small groups, they will prepare a summary of how prompt phototherapy impacts neonatal health outcomes and prevents complications such as kernicterus. Findings will be presented and discussed with peers.
Assessment (Final 30 Minutes) Teacher will assess students using a structured Mini-CEX and simulation performance checklist. Presentations and peer discussions will be evaluated for clarity, application of knowledge, and understanding of phototherapy's clinical importance. Emphasis will be on procedural accuracy, monitoring vigilance, and neonatal safety awareness.

Experiential-Learning 25.3 : Simulation-Based Practice of Neonatal Respiratory Support and Continuous Positive Airway Pressure (CPAP) Application

Total duration of the activities 3 hours
Students will participate in a simulation-based session designed to train them in providing respiratory support to neonates. The session includes oxygen therapy setup, Continuous Positive Airway Pressure (CPAP) device handling, airway positioning, flow regulation, and saturation monitoring. Through simulated case scenarios and guided practice on neonatal models, students will develop the skills necessary for timely respiratory intervention in newborn care.
Instructions to Students (First 30 Minutes) Teacher will demonstrate the clinical setup for neonatal oxygen therapy and Continuous Positive Airway Pressure (CPAP) application. Students must observe airway positioning techniques, equipment calibration, saturation monitoring, and decision-making based on clinical signs. Practice will follow, using neonatal simulators under supervision.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will engage in hands-on simulation using neonatal models. They will record step-by-step procedures for oxygen administration, Continuous Positive Airway Pressure (CPAP) setup, airway positioning, and oxygen saturation tracking. Observations will include signs of respiratory distress and appropriate intervention response.
Step 02 (Second 60 Minutes) Students will participate in group discussions analyzing clinical scenarios that demand respiratory support. They will reflect on the impact of early intervention, decision-making between oxygen therapy vs. Continuous Positive Airway Pressure (CPAP), and long-term outcomes. Each student will submit a reflective note summarizing insights and clinical learning.
Assessment (Final 30 Minutes) Teacher will assess students using Mini-CEX during simulations, with checklists for technique accuracy and clinical judgment. Reflective notes and group discussions will be evaluated for understanding the clinical relevance, safe practice, and neonatal care impact. Emphasis will be on procedural confidence and early intervention awareness.

Experiential-Learning 25.4 : Simulation-Based Vaccine Scheduling Using the National Immunization Schedule (NIS)

Total duration of the activities 3 hours
Students will participate in a simulation-based session involving pediatric case studies. Each case includes variations in age, immunization history, health status, and risk factors. Students will analyze the case and refer to the National Immunization Schedule (NIS) and catch-up protocols to construct a tailored immunization plan. Presentations and discussions will follow to reinforce critical thinking and decision-making in pediatric vaccination strategies.
Instructions to Students (First 20 Minutes) Teacher will assign simulated pediatric cases to student groups. Students must analyze each child's age, medical history, prior vaccinations, and risk factors. Using standard immunization guidelines, determine required vaccines, timing adjustments, and modifications for missed or delayed doses.
Students' Activities (Next 140 Minutes)
Step 01 (First 70 Minutes) Students will prepare structured immunization plans for their assigned cases, referencing the National Immunization Schedule (NIS) and relevant catch-up schedules. Plans should include rationale for selected vaccines, proposed timing, and any required modifications based on the child's age or health condition.
Step 02 (Second 70 Minutes) Each group will present their immunization plan to the class. They will explain how patient-specific factors influenced scheduling decisions. Peers will provide feedback, and discussion will address real-world challenges in applying immunization schedules to diverse pediatric populations.
Assessment (Final 20 Minutes) Teacher will assess student performance using a presentation rubric, checklist for immunization plan accuracy, and peer feedback. A brief viva will evaluate understanding of vaccine timing, catch-up protocols, and case-based clinical reasoning. Emphasis will be on precision, rationale, and alignment with national guidelines.

Experiential-Learning 25.5 : Hands-On Training and Case Reflection on Active and Passive Immunization

Total Duration of the Activities 3 Hours
This session focuses on differentiating active and passive immunization techniques through interactive demonstrations, practice simulations, and case-based discussions. Students will learn about seroconversion, onset of action, efficacy, and safety protocols for each method. They will perform immunization procedures on models, engage in clinical decision-making discussions, and prepare comparative reflection reports based on simulated cases.
Instructions to Students (First 30 Minutes) Teacher will demonstrate preparation and administration of vaccines and immunoglobulins using simulation models. Students will observe safe handling, injection techniques, and dosage calculations. Emphasis will be on patient safety, seroconversion timelines, and infection control. Prepare to practice under teacher supervision during the hands-on component.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will practice active and passive immunization techniques using simulation models. They will handle mock vaccines and immunoglobulins, calculate dosages, and perform correct administration routes (IM, SC). Focus will be placed on technique accuracy, safety, and understanding indications.
Step 02 (Second 60 Minutes) Students will prepare a comparative reflection report discussing the mechanism of action, onset of immunity, duration, indications, and safety considerations for both active and passive immunizations. Peer groups will discuss assigned case scenarios (e.g., post-exposure prophylaxis, routine immunization) to explore clinical applications and patient-specific decisions.
Assessment (Final 30 Minutes) Teacher will assess students through Mini-CEX during simulated procedures and evaluate the comparative reflection report for accuracy, clarity, and insight. Practical viva will test understanding of immunization timelines and case-based clinical decisions. Emphasis will be on procedural competence, patient

safety, and critical thinking.

Experiential-Learning 25.6 : Workshop on Vaccine Classification, Administration Routes, and Cold Chain Management

Total Duration of the Activities 3 Hours
Students will participate in a workshop covering key aspects of vaccine classification (live attenuated, inactivated, toxoid, and subunit), their respective administration routes, and cold chain protocols. After a teacher-led demonstration, students will engage in practical simulations involving vaccine storage setup, reconstitution, and administration on models. Emphasis will be placed on safety, temperature log maintenance, and prevention of storage or administration errors. Final outputs include a summary report and viva-based review.
Instructions to Students (First 30 Minutes) Teacher will demonstrate the operation of cold chain equipment, proper reconstitution of vaccines, and techniques for oral, intradermal, subcutaneous, and intramuscular administration. Students must observe and practice using training models and cold storage units, maintaining hygiene and following all safety guidelines during each step.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will practice cold chain setup, simulate temperature log maintenance, reconstitute mock vaccines, and administer them using models representing various routes. Supervision will ensure adherence to safety protocols and accuracy in technique for each vaccine type.
Step 02 (Second 60 Minutes) Students will write an individual summary report covering the importance of the cold chain, the correlation between route of administration and efficacy, and best practices followed during the session. They will also note observed errors and suggest strategies to prevent them in real clinical settings.
Assessment (Final 30 Minutes) Teacher will evaluate students through Mini-CEX during practical tasks, a checklist for procedural accuracy, and a short viva. Summary reports will be reviewed for understanding of cold chain integrity, route-specific administration, and preventive strategies for common errors. Emphasis will be on safety, accuracy, and practical competency.

Experiential-Learning 25.7 : Workshop on Designing Custom Pediatric Immunization Schedules

Total Duration of the Activities 4 Hours
This hands-on experiential workshop trains students to formulate customized immunization schedules using Indian Academy of Pediatrics (IAP) and National Immunization Program (NIP) guidelines. Following a teacher-led orientation and demonstration on special vaccination scenarios, students will work in teams to review pediatric case histories, identify vaccine gaps, and design appropriate schedules. Emphasis is placed on catch-up vaccination strategies, adherence to protocols, safety, and public health relevance. Students will present and justify their plans, promoting reasoning, teamwork, and protocol literacy.
Instructions to Students (First 30 Minutes) Teacher will orient students to the Indian Academy of Pediatrics (IAP) and National Immunization Program (NIP) standard immunization charts. Students will receive pediatric case scenarios and are expected to identify missed vaccines, interpret relevant clinical data, and plan appropriate catch-up or individualized immunization schedules. Group discussion should also include contraindications and risk factor considerations.
Students' Activities (Next 180 Minutes)
Step 01 (First 60 Minutes) Students will analyze each pediatric case scenario to determine vaccination history, current health status, and risk factors. They will identify gaps

in vaccine coverage and assess urgency and eligibility based on age and history.
Step 02 (Second 60 Minutes) Groups will draft a detailed customized immunization schedule that includes timing, vaccine brand/types, catch-up timelines, and any additional required vaccinations. Adjustments should align with national protocols and account for special conditions such as immunocompromise or allergy.
Step 03 (Third 60 Minutes) Students will prepare to present their immunization plan and defend their choices. They will discuss rationale, anticipated caregiver concerns, contraindications, and broader public health implications. Peer feedback will be encouraged to promote collaborative reasoning.
Assessment (Final 30 Minutes) Teacher will assess the accuracy and appropriateness of the custom schedules, clinical reasoning, protocol adherence, and clarity during presentation. Peer feedback, case-based discussion, and practical viva will contribute to final evaluation. Emphasis will be on safety, logic, and understanding of immunization guidelines in varied pediatric contexts.

Experiential-Learning 25.8 : Clinical Diagnosis and Classification of Pediatric Anemia

Total Duration of the Activities 4 Hours
This experiential learning session introduces students to clinical diagnosis and classification of pediatric anemia. The session begins with a teacher-led demonstration of physiological anemia of infancy, iron deficiency anemia, and megaloblastic anemia. Students will analyze case histories, interpret Complete Blood Count (CBC) and smear findings, classify anemia types, and propose treatment plans. They will collaborate in peer groups to present findings and refine diagnostic reasoning through discussion and guided reflection.
Instructions to Students (First 30 Minutes) Teacher will provide clinical case scenarios representing various pediatric anemia types. Students must read and analyze case histories, identify clinical symptoms, interpret laboratory data, and classify the anemia. Prepare diagnostic and treatment plans with supporting rationale. Team-based collaboration and clear documentation are expected throughout the activity.
Students' Activities (Next 180 Minutes)
Step 01 (First 60 Minutes) Students will analyze assigned case histories, focusing on clinical symptoms such as pallor, fatigue, and developmental delay. They will identify hematopoietic changes and classify the anemia as physiological, iron-deficiency, or megaloblastic. Diagnostic reasoning will be documented with reference to Siddha or modern parameters as applicable.
Step 02 (Second 60 Minutes) Students will interpret Complete Blood Count (CBC) results, peripheral smear morphology, reticulocyte counts, and other hematological parameters. They will correlate lab findings with clinical symptoms and refine the diagnosis accordingly. Peer comparison of findings will be encouraged to support differential diagnosis accuracy.
Step 03 (Third 60 Minutes) Students will prepare and rehearse case presentations, including symptom analysis, lab interpretation, and diagnosis. They will propose a treatment plan with rationale (e.g., iron supplements, folate therapy, dietary advice). Each group will present expected outcomes and management goals during small-group presentations.
Assessment (Final 30 Minutes) Teacher will assess students through Mini-CEX during presentations, accuracy of anemia classification, diagnostic reasoning, and clarity in treatment proposals. Peer feedback and practical viva will contribute to evaluating application skills and collaborative performance. Emphasis will be on clinical insight, evidence-based planning, and communication clarity.

Modular Assessment	
Assessment method	**Hour**
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 6C. **Section A** - 25 Marks - ABQ/ LAQ/SAQ & **Section – B** 25 Marks This OSCE-based modular assessment evaluates the student's competency in identifying neonatal signs, immunization tools, vaccine protocols, and pediatric hematological indicators through structured practical stations. The examination covers visual interpretation, tool handling, schedule comprehension, and blood-related disorder recognition. Students are assessed on their practical observation, recall of clinical criteria, and accurate interpretation based on Siddha and modern frameworks. Each station presents a time-bound task aligned with real-world pediatric practice. *Instructions to Students:* Students will rotate through four OSCE stations. Each station will test your ability to recognize, interpret, or identify visual, clinical, or tool-based cues related to neonatology, immunization, or pediatric blood disorders. Spend adequate time reading the instructions at each station. Students are expected to answer precisely and complete the task within the allocated times per station. No reference material or mobile devices are permitted. *Instructions to Teachers:* Prepare each OSCE station with standardized materials such as images, instruments, or case cards from the respective modules. Evaluate the student using structured checklists for each station. Emphasize accuracy, clarity of observation, and relevance of responses. Ensure uniform timing and fairness throughout. Provide prompt feedback when appropriate. *Mark Distribution:* The OSCE consists of four stations totaling 25 marks. Station 1 – Neonatal Identification and Normal Assessment Skills (7 marks), Station 2 – Immunization Tool/Route/Cold Chain Identification (6 marks), Station 3 – Vaccine Schedule Interpretation (6 marks), and Station 4 – Blood Smear/Hematological Spot Identification and Explanation (6 marks). (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	4

Module 26 : Disorders of Respiratory System and Cardiovascular System

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

Describe developmental physiology of the respiratory system and identify common respiratory symptoms.

Discuss diagnosis and management of upper and lower respiratory tract infections in children.
Describe serious pediatric respiratory disorders including tuberculosis, asthma, cystic fibrosis, and their investigations.
Outline pathophysiology and treatment strategies for pediatric cardiac conditions like heart failure and arrhythmias.
Classify congenital heart diseases and differentiate between cyanotic and acyanotic presentations.
Integrate respiratory and cardiac diagnostic skills for holistic pediatric assessment and management.

M 26 Unit 1 Developmental Physiology and Common Respiratory Illness

26.1.1 Developmental Physiology – Surfactant function, surface tension dynamics, fetal gas transport, initiation of respiration, neonatal pulmonary adaptation, oxygen exchange, lung compliance.
26.1.2 Common Respiratory Symptoms – Cough, expectoration, dyspnea, epistaxis, hemoptysis, respiratory sounds, rattling, wheezing, stridor, clinical evaluation, symptom-based differentials.
26.1.3 Upper Respiratory Tract Infection – Nasopharyngitis, acute tonsillopharyngitis, recurrent sore throat, fever, lymphadenopathy, conservative management, antibiotic guidelines, complication prevention.
26.1.4 Lower Respiratory Tract Infection – Epiglottitis, laryngitis, laryngotracheobronchitis, bronchiolitis, airway obstruction, fever, respiratory distress, hospitalization criteria, supportive care.
26.1.5 Bronchial Asthma & Pneumonia – Bronchial asthma triggers, wheeze, breathlessness, pneumonia causes, cough, fever, auscultation findings, antibiotic therapy, inhalation support.

References: 39,40,43,44,64,67,101,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe the maturation of the respiratory system, key symptoms, and upper respiratory infections.	1	Lecture	CK	Knows-how	L&GD
CO2,CO4,CO6	Identify and interpret abnormal respiratory sounds during auscultation.	2	Practical Training 26.1	PSY-GUD	Shows-how	D-BED,SIM
CO1,CO3,CO4	Demonstrate clinical examination skills to identify signs of pediatric Upper Respiratory	2	Practical	PSY-	Shows-	D-

	Tract Infection (URTI). Perform guided clinical assessment for Upper respiratory tract infections[URTI].		Training 26.2	GUD	how	BED,CBL
CO1,CO3,CO4	Demonstrate skill in identifying Lower Respiratory Tract Infections (LRTI) signs and applying early supportive measures.	2	Practical Training 26.3	PSY-GUD	Shows-how	D-BED,RLE,CBL
CO2,CO7	Participate in hands-on training on diagnostic tools in respiratory disorders.	3	Experiential-Learning 26.1	AFT-VAL	Does	RP,SIM,CBL
CO2,CO7	Construct protocol for diagnosis and management of Lower respiratory tract infections (LRTI).	4	Experiential-Learning 26.2	AFT-VAL	Does	PAL,SIM,CBL
CO1,CO2	Describe the diagnosis and management of Lower respiratory tract infection, Bronchial asthma, and Pneumonia.	1	Lecture	CK	Knows-how	L&PPT,DIS

M 26 Unit 2 Respiratory Disorders

26.2.1 Tuberculosis – Etiology, pathophysiology, clinical features, Mantoux test, chest X-ray findings, antitubercular therapy, contact tracing, treatment monitoring.
26.2.2 Cystic Fibrosis – Genetic mutations, autosomal recessive inheritance, multisystem involvement, respiratory and gastrointestinal symptoms, sweat chloride testing, enzyme replacement, multidisciplinary management.
26.2.3 Foreign Body Aspiration & Suppurative Lung Disease – Sudden onset cough, choking episodes, radiographic localization, bronchoscopy retrieval, lung abscess, bronchiectasis, antimicrobial therapy.
26.2.4 Chronic Obstructive Pulmonary Disease – Pediatric COPD, interstitial lung disease, environmental exposures, clinical signs, spirometry, long-term oxygen therapy, supportive care.
26.2.5 Investigations for Respiratory Illnesses – Chest X-ray interpretation, pulmonary function tests (PFTs), bronchoscopy indications, diagnostic yield, safety protocols, imaging correlation.

References: 39,40,43,44,64,67,101,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Differentiate causes, pathophysiology, clinical features, and management of respiratory	1	Lecture	CK	Know	L_VC,L&

	disorders.					GD
CO2,CO7	Interpret chest X-ray findings to differentiate pediatric respiratory disorders.	2	Practical Training 26.4	PSY-MEC	Shows-how	PAL,X-Ray,LRI,CBL
CO2,CO7	Perform emergency airway clearance techniques and recognize signs of pediatric foreign body aspiration	3	Experiential-Learning 26.3	AFT-VAL	Does	SIM,D-M,W
CO2,CO7	Interpret pediatric respiratory investigations and apply findings to diagnostic and therapeutic planning	4	Experiential-Learning 26.4	AFT-VAL	Does	CBL,W,SIM
CO2,CO7	Perform and interpret Pulmonary Function Test (PFT) to identify respiratory disease patterns.	2	Practical Training 26.5	PSY-MEC	Shows-how	CBL,RLE,DL
CO1,CO2	Identify causes, pathophysiology, presentations, and management of Chronic Obstructive Pulmonary Disease (COPD) and investigations.	1	Lecture	CC	Know	L&PPT,X-Ray

M 26 Unit 3 Cardiovascular Disorders

26.3.1 Congestive Heart Failure – Etiology, left and right heart failure features, tachypnea, hepatomegaly, poor feeding, echocardiographic findings, pharmacologic therapy, fluid management.
26.3.2 Acquired Heart Disease – Rheumatic heart disease, acute rheumatic fever, infective endocarditis, Jones criteria, murmur evaluation, antibiotic prophylaxis, valve involvement.
26.3.3 Myocardial Diseases – Myocarditis, dilated and hypertrophic cardiomyopathy, viral causes, ECG changes, echocardiography, medical management, long-term follow-up.
26.3.4 Anomalies of the Aortic Arch and Pulmonary Arterial Hypertension – Aortic arch malformations, vascular rings, cyanosis, right ventricular hypertrophy, echocardiographic assessment, pulmonary vasodilators.
26.3.5 Cardiac Arrhythmias – Supraventricular tachycardia, bradycardia, palpitations, ECG interpretation, electrophysiological studies, antiarrhythmic drugs, emergency stabilization.

References: 39,40,43,44,64,67,99,100,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe about the Diagnosis and management of congestive cardiac failure and acquired heart diseases.	1	Lecture	CK	Know	PER,PAL
CO3,CO4,CO6	Discuss case based management of pediatric cardiac failure	2	Practical Training 26.6	PSY-MEC	Shows-how	X-Ray,CBL,D-M,SIM
CO3,CO4,CO6	Analyze cardiovascular anomalies and formulate clinical management plans	2	Practical Training 26.7	CAN	Shows-how	C_L,D-M,SIM,L_VC
CO2,CO7	Apply real-world scenarios in the management of Congestive cardiac Failure (CCF).	3	Experiential-Learning 26.5	AFT-VAL	Does	CBL,SIM,TBL
CO1,CO2	Discuss management of Myocardial infarction.	1	Lecture	CAP	Knows-how	PAL,L,PER
CO1,CO2	Diagnose and manage aortic arch anomalies, pulmonary hypertension, arrhythmias.	1	Lecture	CAP	Knows-how	PER,PAL,L

M 26 Unit 4 Congenital Heart Diseases

26.4.1 Classification of Congenital Heart Diseases – Structural heart defects, cyanotic and acyanotic categories, shunt direction, physiological consequences, diagnostic framework, surgical relevance.
26.4.2 Acyanotic Congenital Heart Disease, Left to Right Shunt – Atrial septal defect, ventricular septal defect, patent ductus arteriosus, murmur characteristics, pulmonary overcirculation, medical and surgical options.
26.4.3 Acyanotic Congenital Heart Disease, Regurgitation, Obstructive – Mitral valve prolapse, coarctation of aorta, pulmonary valve stenosis, pressure gradient evaluation, echocardiographic findings, intervention timing.
26.4.4 Cyanotic Congenital Heart Disease, Reduced Pulmonary Flow – Tetralogy of Fallot, tricuspid atresia, Ebstein anomaly, cyanosis, clubbing, hypercyanotic spells, surgical correction strategies.
26.4.5 Cyanotic Congenital Heart Disease, Increased Pulmonary Flow – Transposition of great arteries, truncus arteriosus, heart failure signs, oxygen desaturation,

diagnostic imaging, staged repair techniques.

References: 39,40,43,44,64,67,99,100,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe congenital heart diseases, classification, and Acyanotic congenital heart diseases with Left to Right shunt.	1	Lecture	CAP	Know	CBL,L
CO2,CO3,CO7	Apply echocardiographic findings to classify congenital heart diseases.	2	Practical Training 26.8	PSY-GUD	Shows-how	DIS,CBL,D-M,SIM
CO2,CO4,CO7	Describe pathophysiology and management of acyanotic heart defects.	2	Practical Training 26.9	CC	Shows-how	EDU,GBL,ML
CO2,CO3,CO7	Perform diagnostic steps for cyanotic congenital heart diseases.	2	Practical Training 26.10	PSY-GUD	Shows-how	SIM,DIS,D-BED,CBL
CO2,CO7	Practice diagnosis and management of Acyanotic congenital heart disease using simulation method.	3	Experiential-Learning 26.6	AFT-REC	Does	PL,SIM,CBL
CO2,CO7	Perform to evaluate and manage cyanotic congenital heart diseases.	3	Experiential-Learning 26.7	AFT-REC	Does	DIS,PBL,CBL,PL
CO2,CO7	Participate in hands-on training on diagnostic tools in respiratory disorders.	3	Experiential-Learning 26.8	AFT-REC	Does	RP,CBL,PL
CO1,CO2	Describe Acyanotic Congenital Heart Disease, Regurgitation, and Obstructive types.	1	Lecture	CAP	Knows-how	CBL,L

CO1,CO2	Describe Cyanotic Congenital Heart Disease with Reduced and Increased Pulmonary Flow.	1	Lecture	CK	Knows-how	L,CBL

Practical Training Activity

Practical Training 26.1 : Clinical Identification of Respiratory Sounds and Symptom Correlation in children

Total Duration of the Activities: 2 Hours
This session enables students to perform auscultation of pediatric patients (real or simulated) and identify respiratory sounds such as wheezing, stridor, crepitations, and rhonchi. It bridges sound interpretation with clinical features like dyspnea, cough, and expectoration, using both Siddha nosology and modern diagnostic perspectives. It aims to build diagnostic confidence through hands-on training and group analysis.
Instructions to Students (First 30 Minutes): Teacher will demonstrate correct stethoscope placement, posture, and technique for auscultation. Students will be guided to listen and document respiratory sounds, observe sound characteristics, and relate them to symptoms like wheeze (asthma), stridor (epiglottitis), or coarse rattling (pneumonia). Siddha and modern interpretations will be briefly introduced.
Students' Activities (Next 60 mins - 30 mins + 30 mins)
Step 01 (First 30 Minutes): Students will perform guided auscultation on pediatric models or simulated patients. They will: Identify wheezing, stridor, crepitations, rhonchi, or absence of breath sounds.Note location, timing (inspiration/expiration), and intensity Record symptoms and associate findings with likely conditions
Step 02 (Next 30 Minutes): Students will discuss findings in peer groups. They will match each auscultated sound with clinical diagnoses (e.g., wheeze with asthma, stridor with laryngeal obstruction). Groups will attempt to classify the condition under relevant Siddha types (e.g., Irumal, Muppirai) and suggest preliminary management plans.
Assessment Methods (Final 30 Minutes): Teacher will assess students using a DOPS checklist during auscultation for technique, accuracy, and professionalism. A short viva will test their ability to interpret findings and suggest diagnoses. Peer discussion will be monitored for clinical reasoning and integration of Siddha principles.

Practical Training 26.2 : Clinical Examination and Siddha-Based Management of Pediatric Upper Respiratory Tract Infection (URTI).

Total Duration of the Activity: 2 Hours
This session enables students to perform systematic ENT examinations in children to identify signs of upper respiratory tract infections (URTIs), particularly nasopharyngitis and acute tonsillopharyngitis. Emphasis will be placed on recognizing key signs such as sore throat, erythema, swollen tonsils, and nasal congestion, and planning *Siddha*-based and integrative management strategies.
Instructions to Students (First 30 Minutes): Teacher will demonstrate ENT examination techniques, highlighting inspection of the oral cavity, nasal passages, and pharyngeal region. Students should focus on identifying inflammation, swelling, erythema, and discharge, and understand their relevance in diagnosis and management from both *Siddha* and modern perspectives.
Students' Activities (Next 60 mins - 30 mins + 30 mins)
Step 01 (First 30 Minutes): Students will practice head, nose, and throat examination on each other or simulated patients under supervision. They will document clinical findings such as pharyngeal redness, tonsillar enlargement, nasal congestion, and voice changes, using a structured proforma and checklist.

Step 02 (Next 30 Minutes): Students will classify the findings under Upper Respiratory Tract Infection (URTI) categories (nasopharyngitis vs. tonsillopharyngitis). They will then draft a *Siddha*-integrated management plan that includes herbal internal remedies, dietary regulation (Paatiyam), external therapies, and preventive hygiene advice.
Assessment Methods (Final 30 Minutes): Teacher will evaluate the students using a DOPS checklist during the examination procedure. A practical viva will assess symptom identification, diagnosis, and *Siddha*-based management planning. Case-based questions may be used to test diagnostic clarity and integration of therapy.

Practical Training 26.3 : Evaluation and Supportive Management of Pediatric Lower Respiratory Tract Infections (LRTI)

Total Duration of the Activity: 2 Hours
This session trains students to identify clinical signs of Lower Respiratory Tract Infections (LRTIs) in children, such as stridor, wheezing, grunting, and cough, with specific focus on epiglottitis and bronchiolitis. Using simulated or bedside patient scenarios, learners will assess respiratory function, interpret symptom significance, and develop early supportive care plans incorporating both Siddha and modern integrative measures.
Instructions to Students (First 20 Minutes): Teacher will demonstrate clinical signs of pediatric Lower Respiratory Tract Infections (LRTI) using models or bedside examples. Students will observe airway obstruction signs, retraction patterns, and noisy breathing. The teacher will explain early supportive measures, including oxygen positioning, hydration planning, and *Paatiyam* recommendations.
Students' Activities
Step 01 (First 40 Minutes): Students will practice structured respiratory assessments on simulated patients under supervision. They will document presence of stridor, grunting, nasal flaring, and retractions, and classify findings as indicative of either epiglottitis or bronchiolitis. Clinical templates will guide documentation.
Step 02 (Next 40 Minutes): Students will draft a *Siddha*-integrated care plan, including use of external therapies (e.g., steam inhalation), internal medications, hydration strategies, and oxygen delivery support. They will present findings and rationale in peer discussions for group feedback and clinical reasoning refinement.
Assessment Methods (Final 20 Minutes): Teacher will evaluate student performance through DOPS, focusing on clinical accuracy and examination technique. A checklist will track completion and quality of symptom identification. A short viva will assess understanding of Lower Respiratory Tract Infections (LRTI) progression, early intervention strategies, and *Siddha* therapy application.

Practical Training 26.4 : Radiological Interpretation of Pediatric tuberculosis (TB), chronic obstructive pulmonary disease (COPD), and Lung Abscess

Total Duration of the Activities: 2 Hours
This session trains students to interpret pediatric chest X-rays showing features of tuberculosis (TB), chronic obstructive pulmonary disease (COPD), and lung abscess. Learners will examine radiological patterns such as cavitations, hyperinflation, patchy infiltrates, and consolidations, and correlate findings with clinical presentations and Siddha diagnostic principles. The goal is to improve diagnostic confidence and integrative management planning.
Instructions to Students (First 20 Minutes): Teacher will explain X-ray interpretation steps and demonstrate signs specific to pediatric tuberculosis, lung abscess, and COPD. Students will be guided to focus on detecting nodular opacities, cavitations, hyperlucency, or fluid levels. Reference Siddha perspectives (e.g., Kutram-based symptom evolution) and modern anatomical interpretations.
Step 01 (First 40 Minutes): Students will independently review assigned chest X-rays. They will document key findings for each condition:Tuberculosis: Cavitations,

infiltrates, nodular lesions
COPD: Hyperinflation, flattened diaphragm, Lung abscess: Air-fluid levels, localized consolidation. Correlate observations with patient symptoms and classify possible diagnoses using Siddha and modern viewpoints.
Step 02 (Next 40 Minutes): In small groups, students will discuss clinical implications of each radiographic pattern. They will propose integrated management strategies, including internal Siddha remedies (like Kabasura Kudineer), dietary advice (Paatiyam), and modern diagnostics or referrals. Each group will prepare a brief presentation summarizing their diagnostic reasoning and proposed care plan.
Assessment Methods (Final 20 Minutes): Teacher will assess each student using a structured checklist for completeness and correctness in X-ray interpretation. A viva voce will test reasoning and ability to link clinical symptoms with radiographic findings. Students' group reports and discussions will be reviewed to evaluate clarity, integration, and communication skills.

Practical Training 26.5 : Pulmonary Function Test Interpretation in Pediatric Respiratory Disorders

Total Duration of the Activity: 2 Hours
This practical session trains students to perform and interpret Pulmonary Function Tests (PFTs) using spirometry, focusing on identifying obstructive patterns (e.g., Chronic Obstructive Pulmonary Disease) and restrictive patterns (e.g., post-TB fibrosis). Through simulations and pediatric case discussions, students will apply their results to real-world clinical decisions, learning to correlate test findings with symptoms and recommend suitable management strategies.
Instructions to Students (First 20 Minutes): Teacher will demonstrate proper spirometry technique using simulation models and explain how to document parameters such as Forced vital capacity (FVC), the Forced expiratory volume in 1 second (FEV1), and FEV1/FVC ratio. Students must understand the significance of these values in respiratory conditions. Prepare to perform the procedure and interpret the output.
Students' Activities
Step 01 (First 60 Minutes): Students will conduct spirometry tests on volunteers or models. They will measure lung function parameters, document results, and plot flow-volume curves. Each student will determine whether the respiratory pattern suggests an obstructive or restrictive disease and justify their diagnosis.
Step 02 (Next 30 Minutes): Students will engage in group-based discussion of pediatric case scenarios (e.g., a child with TB or early-onset asthma/ Chronic Obstructive Pulmonary Disease). They will interpret the Pulmonary Function Test (PFT) results in context and suggest initial treatment strategies and follow-up plans.
Assessment Methods (Final 20 Minutes): Teacher will use DOPS to evaluate technical skill during spirometry. A practical viva will assess knowledge of respiratory physiology and disease interpretation. A case-based assessment will test diagnostic accuracy and clinical application of Pulmonary Function Test (PFT) findings.

Practical Training 26.6 : Clinical Evaluation and Siddha-Based Management of Pediatric Heart Failure

Total Duration of the Activity: 2 Hours
This practical session enables students to analyze pediatric heart failure cases through clinical records, echocardiograms, and chest X-rays. Students will learn to identify cardinal symptoms such as edema, fatigue, and respiratory distress, classify the stage of heart failure, and develop integrative management plans using both *Siddha* therapies and modern clinical interventions. Emphasis is placed on early diagnosis, humor-based interpretation, and appropriate therapy formulation.

Instructions to Students (First 20 Minutes): Teacher will introduce the clinical features of pediatric heart failure and demonstrate interpretation of echo and X-ray findings. Students will review *Siddha* concepts of cardiac imbalance and correlate with disease staging. Prepare to assess simulated or documented pediatric cases and design management strategies using Siddha formulations and dietary protocols.
Students' Activities
Step 01 (First 40 Minutes): Students will individually analyze provided pediatric heart failure case studies, identifying symptoms such as dyspnea, poor feeding, edema, and lethargy. They will interpret diagnostic findings from echocardiograms and chest X-rays and classify the cases into appropriate heart failure stages based on severity.
Step 02 (Next 40 Minutes): Working in small groups, students will formulate *Siddha*-integrated treatment plans for each stage. They will include internal Siddha formulations, supportive measures like diet and lifestyle regulation, and strategies for fluid balance and respiratory support. Plans will be presented to peers and teacher for review and refinement.

Assessment Methods (Final 20 Minutes): Teacher will conduct a Mini-CEX evaluating case interpretation and clinical decision-making. Case-based assessment tools will be used to check staging accuracy and treatment logic. A viva will assess understanding of *Siddha principles*, symptom correlation, and management planning.

Practical Training 26.7 : Identification of Aortic Arch Anomalies and Pediatric Pulmonary Arterial Hypertension

Total Duration of the Activity: 2 Hours
This session introduces students to anatomical anomalies of the aortic arch and the pathophysiological basis of pulmonary arterial hypertension (PAH) in children. Students will participate in model-based demonstrations and case simulations to observe abnormal pulse findings, cyanosis, and respiratory symptoms. They will analyze the relationship between structural deviation and clinical presentation, and formulate integrative management plans rooted in *Siddha* and modern pediatric care.
Instructions to Students (First 20 Minutes): Teacher will demonstrate aortic arch anatomy and pulmonary circulation using anatomical models. Students must observe the deviations and understand how these affect hemodynamics. Focus will be placed on pulmonary arterial hypertension (PAH)-related signs and clinical complications like cyanosis, breathing difficulty, and unequal pulses. Students should be ready to perform case analysis and participate in clinical puzzle-solving activities.
Students' Activities
Step 01 (First 40 Minutes): Students will engage in structured simulations that include abnormal pulse patterns, auscultation findings, and cyanotic features. They will examine anatomical models of aortic arch anomalies and perform guided clinical history taking. Each student will identify the anomaly, assess pulmonary arterial hypertension (PAH) signs, and propose differential diagnoses.
Step 02 (Next 40 Minutes): In pairs, students will solve structured clinical puzzles designed around aortic and pulmonary vascular pathologies. They will then summarize their findings and present a brief diagnosis and intervention strategy, integrating both Siddha and allopathic approaches to management.
Assessment (Final 20 Minutes): Teacher will use Mini-CEX and observation checklists to assess student participation, diagnostic accuracy, and application of theoretical knowledge. Puzzle performance and clinical summaries will be reviewed for clarity and logic. A brief viva will test understanding of pathophysiology and multidisciplinary management options.

Practical Training 26.8 : Classification of Congenital Heart Diseases Using Echocardiographic Simulations

Total Duration of the Activity: 2 Hours
This practical session helps students understand the clinical classification of congenital heart diseases (CHDs) into cyanotic and acyanotic categories. Using clinical simulation models and echocardiographic video clips, students will identify cardiac anomalies such as septal defects, transpositions, and valve abnormalities. Emphasis is placed on interpreting structural findings, recording clinical features, and determining how classification influences therapeutic decisions and urgency of care.
Instructions to Students (First 20 Minutes): Teacher will present an overview of cyanotic vs. acyanotic congenital heart diseases (CHDs) using echocardiographic videos. Students will observe simulation models and focus on identifying structural heart anomalies. Prepare to analyze diagnostic images, classify defects, and document your clinical reasoning and follow-up plans.
Students' Activities
Step 01 (First 40 Minutes): Students will work with simulated diagnostic images or 3D heart models. Each student will identify features such as Atrial septal defect (ASD), Ventricular septal defect (VSD), Transposition of great arteries (TGA), or Patent ductus arteriosus (PDA). They will then classify each case as cyanotic or acyanotic based on observed signs and echo findings, using structured worksheets.
Step 02 (Next 40 Minutes): Students will discuss how their classification determines treatment urgency—e.g., emergency surgery for Transposition of great arteries (TGA) versus medical management for Atrial septal defect (ASD). In pairs, students will prepare a clinical case summary with diagnosis, classification, justification, and treatment rationale. Peer review will support critical evaluation.
Assessment (Final 20 Minutes): Teacher will conduct a Mini-CEX to assess students' ability to interpret echocardiographic findings, classify the heart defect, and suggest appropriate interventions. Practical case notes will be evaluated for accuracy and logic. Peer assessment will gauge collaborative learning and diagnostic reasoning.

Practical Training 26.9 : Identification and Management of Acyanotic Congenital Heart Diseases through Gamified Learning

Total Duration of the Activity: 2 Hours
This interactive session enhances student understanding of the pathophysiology, clinical signs, and Siddha-compatible management of acyanotic congenital heart defects such as Atrial septal defect (ASD), Ventricular septal defect (VSD), and Patent ductus arteriosus (PDA) Mitral Valve Prolapse (MVP), coarctation of the aorta, and pulmonary valve stenosis. Gamified modules, simulations, and mobile-based quizzes will help students correlate diagnostic markers with clinical presentations. Group discussions and edutainment videos will reinforce concepts and encourage active participation.
Instructions to Students (First 20 Minutes): Teacher will guide students to log into mobile learning platforms. Watch short animation clips explaining hemodynamics and murmurs in acyanotic heart diseases. Engage in a brief tutorial on how to participate in gamified case-solving and quizzes. Review classification and basic management strategies.
Students' Activities
Step 01 (First 40 Minutes): Students will complete a mobile-based case-solving challenge in pairs or teams, where they match symptoms to specific acyanotic heart defects. They will also engage in a digital patient simulation that requires making clinical decisions to stabilize a virtual patient and justify choices during group debriefing.
Step 02 (Next 40 Minutes): Students will compete in a team-based quiz using mobile platforms. Questions will test recognition of clinical signs, diagnostic tools (e.g.,

echocardiogram findings), and integrative treatment plans that may include supportive Siddha therapies. The quiz will reinforce both factual recall and application of knowledge.
Assessment (Final 20 Minutes): Teacher will evaluate students based on their scores in the game-based challenges and mobile quizzes. Peer assessment will be used to reflect on teamwork and reasoning during simulation. A short oral quiz will check application of knowledge in distinguishing between various acyanotic heart conditions.

Practical Training 26.10 : Clinical Simulation and Diagnosis of Cyanotic Congenital Heart Diseases

Total Duration of the Activity: 2 Hours
Students will engage in a simulation-based clinical activity focused on cyanotic congenital heart diseases. They will differentiate between reduced pulmonary flow defects (Tetralogy of Fallot, tricuspid atresia, Ebstein anomaly) and increased pulmonary flow conditions (transposition of great arteries, truncus arteriosus). Using patient simulations and clinical models, they will examine signs like central cyanosis, clubbing, heart murmurs, and oxygen saturation, then formulate diagnoses and management strategies.
Instructions to Students (First 20 Minutes): Teacher will demonstrate simulated models of cyanotic congenital heart conditions. Students will observe clinical features including cyanosis, heart sounds, and pulse oximetry changes. Review diagnostic clues from case histories and imaging provided in the simulation. Prepare for case analysis and group-based diagnostic planning.
Students' Activities
Step 01 (First 50 Minutes): Students will analyze assigned clinical cases through simulation or virtual models. They will assess key signs including murmur characteristics, cyanosis, respiratory pattern, and saturation levels. Each student will document their differential diagnosis and assign the likely heart defect subtype using structured clinical checklists.
Step 02 (Next 30 Minutes): Students will engage in a guided group discussion to consolidate diagnosis, outline immediate care strategies such as oxygen administration, and identify criteria for surgical referral. Groups will create and present a visual quick-reference chart comparing cyanotic heart defects, their hallmark signs, and initial management.
Assessment (Final 20 Minutes): Teacher will conduct a Mini-CEX to evaluate student performance in simulated clinical encounters. Students will be assessed on diagnostic clarity, case documentation, and communication of findings. Peer feedback and checklist-based evaluation will support assessment of logical reasoning and group interaction quality.

Experiential learning Activity

Experiential-Learning 26.1 : Role-Play and Case Study on Upper Respiratory Tract Infections

Total Duration of the Activities 3 Hours
This interactive session enables students to manage Upper Respiratory Tract Infections (URTIs) such as nasopharyngitis and acute tonsillopharyngitis. Through role-play and clinical case simulation, students will practice history-taking, identify key symptoms, and provide caregiver counselling on symptom relief, hygiene, and preventive measures. The activity reinforces early intervention and community-level education for infection control.

Instructions to Students (First 30 Minutes) Teacher will present clinical cases of Upper Respiratory Tract Infections (URTIs) and demonstrate common presentations such as sore throat, nasal congestion, and fever. Students will receive role-play scripts and guidelines for interacting with caregivers. Emphasis will be placed on accurate symptom identification, proposing treatment plans, and delivering effective caregiver education.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will participate in role-play exercises, alternating between clinician and caregiver roles. They will practice taking clinical history, identifying Upper Respiratory Tract Infections (URTIs) symptoms, suggesting supportive care, and educating caregivers on hygiene, hydration, and signs that warrant medical attention.
Step 02 (Second 60 Minutes) Students will prepare a concise summary report capturing case symptoms, proposed treatment, and caregiver education points. They will reflect on infection control strategies and the role of early intervention in reducing complications. Group sharing will reinforce key takeaways and refine communication techniques.
Assessment (Final 30 Minutes) Teacher will assess students through observation of role-play performance, clarity of communication, and caregiver engagement. The summary report will be evaluated for clinical relevance and educational value. Peer feedback will contribute to assessing interpersonal skills, teamwork, and understanding of Upper Respiratory Tract Infections (URTIs) diagnosis and management.

Experiential-Learning 26.2 : Interactive Training on Diagnosing and Managing Lower Respiratory Tract Infections

Total Duration of the Activities 4 Hours
This training session immerses students in managing pediatric Lower respiratory tract infections (LRTI)—epiglottitis and bronchiolitis—through realistic case simulations. Students will identify clinical signs (e.g., stridor, cyanosis), interpret investigations, and implement therapeutic protocols including oxygen therapy, bronchodilators, and airway support. The session enhances clinical decision-making, teamwork, and the ability to act swiftly in emergency pediatric settings.
Instructions to Students (First 30 Minutes) Teacher will introduce pediatric cases of Lower respiratory tract infections (LRTI) with symptoms such as fever, tachypnea, and inspiratory stridor. Students will review clinical signs, diagnostic tools (chest X-ray, pulse oximetry), and standard management guidelines. Questions are encouraged to clarify airway care, medication use, and emergency responses before group simulation begins.
Students' Activities (Next 180 Minutes)
Step 01 (First 60 Minutes) Each group will receive a detailed case of epiglottitis or bronchiolitis. Students will review symptoms, formulate a clinical impression, and present a prioritized initial treatment plan including airway precautions and pharmacological support.
Step 02 (Second 60 Minutes) Students will simulate management steps: oxygen administration, nebulization, positioning, and hydration. They will document each action, explaining clinical reasoning, and adjust management in response to simulated patient changes.
Step 03 (Third 60 Minutes) Groups will discuss clinical outcomes, evaluating the impact of early recognition and treatment. A follow-up care strategy will be designed, focusing on recurrence prevention, caregiver education, and monitoring for complications like respiratory failure.
Assessment (Final 30 Minutes) Teacher will assess case analysis, simulation performance, and treatment accuracy using Mini-CEX and peer feedback. Emphasis will be placed on timely clinical decision-making, safe procedural execution, and ability to prevent complications through early and appropriate intervention in pediatric lower respiratory infections.

Experiential-Learning 26.3 : Workshop on Recognition and Management of Foreign Body Aspiration in Children

Total Duration of the Activities 3 Hours

This hands-on simulation-based session trains students to identify and manage pediatric foreign body aspiration. Using anatomical models and emergency scenarios, students will perform life-saving techniques including Heimlich maneuver, back blows, and suctioning. Emphasis is placed on early recognition, rapid response, and prevention of complications through correct technique and decision-making.

Instructions to Students (First 30 Minutes) Teacher will introduce the clinical signs of foreign body aspiration and demonstrate airway clearance methods on training models. Focus on symptom recognition, safe execution of Heimlich and suctioning, and proper use of emergency equipment. Use this time to clarify procedures and prepare for simulation-based practice.

Students' Activities (Next 120 Minutes)

Step 01 (First 60 Minutes) Students will work with mannequins to simulate pediatric foreign body aspiration scenarios. They will identify clinical signs such as coughing, stridor, or cyanosis and perform stepwise interventions including back blows, abdominal thrusts, and airway suctioning. Techniques will be practiced repeatedly to ensure procedural accuracy and confidence.

Step 02 (Second 60 Minutes) Students will document the sequence of recognition and response, noting critical symptoms and intervention timing. Peer groups will discuss how emergency preparedness and rapid management influence outcomes. Reflection on performance accuracy and confidence levels will be recorded.

Assessment (Final 30 Minutes) Teacher will assess students through Mini-CEX and DOPS for technical skill, decision-making, and safety adherence. Students will also be evaluated on their participation, documentation clarity, and peer-reviewed reflection. Emphasis will be on recognizing life-threatening signs early and applying safe, effective interventions to reduce mortality risk.

Experiential-Learning 26.4 : Workshop on chest X-rays, Pulmonary Function Test (PFT), and Bronchoscopy Interpretation in Pediatric Respiratory Conditions

Total Duration of the Activities 4 Hours

Students will engage in a hands-on workshop to develop interpretation skills for pediatric chest X-rays and Pulmonary Function Test (PFT), findings in conditions like asthma, pneumonia, and bronchitis. They will also observe bronchoscopy (live/video) to understand airway evaluation. Students will practice linking diagnostic data to treatment decisions through structured group discussions, reflection, and presentations.

Instructions to Students (First 30 Minutes) Teacher will explain the basics of normal vs. abnormal chest X-rays and Pulmonary Function Test (PFT) reports. Demonstration of radiological signs (consolidation, effusion, hyperinflation) and spirometry interpretation (obstructive vs. restrictive) will follow. Observe a bronchoscopy procedure, focusing on airway visualization and its clinical relevance. Be prepared to interpret case materials and present findings.

Students' Activities (Next 180 Minutes)

Step 01 (First 60 Minutes) Students will analyze sample chest X-rays and Pulmonary Function Test (PFT) reports, documenting radiological signs, spirometry patterns, and forming diagnostic impressions. Emphasis will be on accurate observation, structured documentation, and reasoning for differential diagnosis.

Step 02 (Second 60 Minutes) Students will observe bronchoscopy video/live demonstration. They will discuss its indications, diagnostic utility, and visual clues for identifying airway obstructions, anomalies, or infections. Reflection notes will be compiled summarizing procedural insights.

Step 03 (Third 60 Minutes) Students will integrate all findings (chest X-rays + Pulmonary Function Test + bronchoscopy) into diagnostic summaries. They will draft appropriate treatment plans and present in small groups. Emphasis will be on clinical integration, team discussion, and evidence-based justification of treatment strategies.
Assessment (Final 30 Minutes) Teacher will assess case interpretation accuracy, integration of multi-modal diagnostics, and clinical reasoning using Mini-CEX, peer discussion, and presentation review. Viva will evaluate students' ability to link imaging and procedural findings to therapeutic decisions. Reports and reflections will support assessment of individual understanding and applied skills.

Experiential-Learning 26.5 : Case Simulation on Pediatric Congestive cardiac Failure Management

Total Duration of the Activities 3 Hours
This simulation session trains students to recognize and manage pediatric Congestive cardiac Failure (CCF) through realistic patient scenarios. Students will identify symptoms like tachypnea, hepatomegaly, and edema, interpret clinical data, and develop stepwise treatment plans. Emphasis is placed on early intervention, pharmacologic therapy, fluid control, and monitoring, promoting improved outcomes and long-term care strategies.
Instructions to Students (First 20 Minutes) Teacher will introduce Congestive cardiac Failure (CCF) pathophysiology and key diagnostic indicators. Students will learn auscultation, palpation, and vital sign interpretation. Clinical tools such as imaging (X-ray, echo) and lab findings will be discussed. Instructions on fluid restriction, diuretic therapy, oxygen use, and inotropes will guide the management simulation.
Students' Activities (Next 140 Minutes)
Step 01 (First 70 Minutes) Students will assess a simulated pediatric Congestive cardiac Failure (CCF) patient. They will identify clinical signs (tachypnea, feeding difficulty, hepatomegaly), interpret diagnostic data, and document findings. Tools include monitoring charts, physical exam checklists, and observation logs.
Step 02 (Second 70 Minutes) Students will formulate a stepwise treatment plan, integrating pharmacological therapy (diuretics, inotropes), fluid restriction, and oxygen administration. They will present the case summary to peers, discuss early vs. delayed intervention outcomes, and recommend follow-up strategies for long-term cardiac care.
Assessment (Final 20 Minutes) Teacher will assess students using Mini-CEX and checklists for examination technique, diagnostic accuracy, and treatment planning. Presentations and viva will evaluate understanding of Congestive cardiac Failure (CCF) management protocols. Peer feedback will reflect team communication, critical thinking, and practical execution of early interventions for improved pediatric cardiac outcomes.

Experiential-Learning 26.6 : Simulation-Based Clinical Management of Left-to-Right Shunt Lesions Atrial septal defect (ASD), Ventricular septal defect (VSD), and Patent ductus arteriosus (PDA)

Total Duration of the Activities 3 Hours

Students will work through simulated pediatric cases involving left-to-right shunt congenital heart defects: Atrial septal defect (ASD), Ventricular septal defect (VSD), and Patent ductus arteriosus (PDA). They will practice clinical examination, symptom recognition, and auscultation on simulators. Students will analyze diagnostic data, form differential diagnoses, and design treatment plans considering both medical and surgical strategies. Focus will be placed on timely intervention to prevent complications such as pulmonary hypertension and congestive heart failure.
Instructions to Students (First 30 Minutes) Teacher will explain clinical objectives, simulation station procedures, and competencies required. Students will receive diagnostic data such as echocardiograms, clinical history, and auscultation recordings. Guidance will be provided on symptom recognition, provisional diagnosis formulation, and treatment planning based on current evidence and guidelines.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will rotate through simulation stations for Atrial septal defect (ASD), Ventricular septal defect (VSD), and Patent ductus arteriosus (PDA). They will identify presenting symptoms (e.g., tachypnea, poor weight gain, murmur), perform basic physical examination, interpret diagnostic findings, and form provisional diagnoses.
Step 02 (Second 60 Minutes) Students will formulate treatment plans tailored to age and severity, discussing pharmacological, surgical, and supportive interventions. They will justify their decisions during peer discussion sessions, analyze early vs. delayed intervention outcomes, and reflect on risks such as heart failure and Eisenmenger syndrome.
Assessment (Final 30 Minutes) Teacher will assess students using Mini-CEX at each station for diagnostic accuracy and procedural skills. Case-based presentations and practical viva will evaluate decision-making, communication, and understanding of complication risks. Peer feedback will further reflect teamwork, reasoning, and clarity of clinical judgments.

Experiential-Learning 26.7 : Interactive Case Study on Cyanotic Congenital Heart Disease with Reduced Pulmonary Flow

Total Duration of the Activities 3 Hours
This session focuses on Tetralogy of Fallot and Tricuspid Atresia—cyanotic congenital heart diseases with reduced pulmonary flow. Students will work through case-based scenarios to identify clinical features, select diagnostic tools, and design evidence-based management plans. The activity encourages analytical thinking, multidisciplinary care planning, and emphasizes timely diagnosis, ethical communication, and coordinated care.
Instructions to Students (First 30 Minutes) Teacher will present detailed case scenarios and orient students on identifying clinical signs of cyanosis, murmur patterns, and reduced pulmonary blood flow. Diagnostic interpretation using Electrocardiogram (ECG), echocardiography, and chest X-ray will be explained. Students will be guided to frame medical, surgical, and long-term follow-up strategies with emphasis on teamwork and ethical counselling.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will analyze their assigned case scenario, identifying pathophysiological features, clinical signs, and complications of Tetralogy of Fallot or Tricuspid Atresia. They will list diagnostic steps, interpret available reports, and formulate short- and long-term treatment strategies (medical, surgical, caregiver education).
Step 02 (Second 60 Minutes) Students will present a structured case summary including symptomatology, investigation results, diagnosis, and a stepwise management plan. Justification of clinical decisions, patient safety considerations, and the role of early intervention will be emphasized during presentations and peer feedback.

Assessment (Final 30 Minutes) Teacher will assess case presentations using a structured rubric, focusing on diagnostic reasoning, clarity of treatment plans, and communication strategy. Peer feedback and short viva will evaluate the student's ability to interpret clinical data and propose evidence-based management. Emphasis will be on early recognition, ethical counselling, and multidisciplinary coordination.

Experiential-Learning 26.8 : Role-Play and Case-Based Workshop on Pediatric Upper Respiratory Tract Infection (URTI) Management

Total Duration of the Activities 3 Hours
This session enables students to develop clinical and communication skills required to manage pediatric Upper Respiratory Tract Infection (URTI) such as nasopharyngitis and tonsillopharyngitis. Through role-play and case studies, students will practice history taking, symptom identification, and patient counselling. Focus will be on supportive care, caregiver education, infection control, and effective early intervention to prevent complications and reduce spread.
Instructions to Students (First 30 Minutes) Teacher will present pediatric Upper Respiratory Tract Infection (URTI) case scenarios and explain typical symptoms and treatment approaches. Students will receive role-play instructions covering clinical assessment and caregiver communication. Emphasis will be placed on delivering infection control advice, symptom relief guidance, and preventive strategies.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will engage in role-play scenarios, switching between practitioner and caregiver roles. They will take mock patient history, identify Upper Respiratory Tract Infection (URTI) symptoms, propose symptom-based management, and practice counselling caregivers on hygiene, fluid intake, and warning signs for escalation.
Step 02 (Second 60 Minutes) Students will write a summary report outlining diagnostic features, treatment protocols, and patient/caregiver counselling highlights. They will include infection control practices and early care strategies for Upper Respiratory Tract Infection (URTI) . Peer discussions will be held to compare learning outcomes and refine communication strategies.
Assessment (Final 30 Minutes) Teacher will assess students using a practical role-play rubric, case-based analysis of treatment plans, and quality of caregiver counselling. Peer feedback and summary reports will be reviewed to evaluate application of knowledge, communication skills, and understanding of infection prevention in pediatric Upper Respiratory Tract Infection (URTI) management.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A – 25 Marks - This case-based practical problem-solving assessment evaluates the student's clinical reasoning and decision-making in managing pediatric respiratory disorders. The cases focus on developmental physiology, upper and lower respiratory tract infections, bronchial asthma, pneumonia, tuberculosis, cystic fibrosis, foreign body aspiration, chronic respiratory illnesses, and diagnostic tools. Students must analyze a clinical scenario, identify key findings, propose a diagnosis, suggest appropriate investigations, and outline an integrated management plan using both Siddha and modern	4

approaches. Instructions to Students: Students will receive a structured pediatric clinical scenario describing respiratory symptoms such as dyspnea, wheeze, or cough. Analyze the history, identify symptom clusters, and perform logical case interpretation using Siddha diagnostic tools and modern clinical criteria. Prepare a management plan with supportive, therapeutic, and preventive components. Justify their diagnosis and treatment strategy during viva interaction. No reference material or devices are allowed. Instructions to Teachers: Provide a case scenario reflecting conditions such as pneumonia, asthma, tuberculosis, or foreign body aspiration. Evaluate students on their ability to synthesize clinical information, apply biomedical reasoning, propose logical interventions, and communicate effectively. Use a structured rubric to ensure consistent and objective evaluation. Mark Distribution: This practical problem-solving assessment totals 25 marks. History and Symptom Interpretation – 7 marks; Diagnosis and Case Categorization – 6 marks; Investigations and Therapeutic Plan – 6 marks; Preventive and Supportive Advice – 3 marks; Communication and Clinical Reasoning (Viva) – 3 marks. Total: 25 Marks. & Section B – This 25-mark assessment focuses on evaluating students' clinical acumen in handling pediatric cardiovascular cases using modern diagnostic frameworks. Students will engage with simulated pediatric patient scenarios presenting with signs like cyanosis, breathlessness, arrhythmia, or murmur. They are expected to perform structured case-taking, interpret findings using clinical reasoning, classify conditions such as congenital heart disease or cardiomyopathy, and plan immediate and long-term management strategies. This assessment prioritizes real-time clinical thinking and problem-solving methods. Instructions to Students: Students will be assigned a simulated pediatric patient case involving cardiac symptoms such as murmur, cyanosis, palpitations, or failure to thrive. Conduct structured history-taking, focusing on symptom evolution, family history, feeding pattern, and developmental status. Perform clinical assessment (via observation or mannequin-based interaction), identify the likely diagnosis, and outline a practical management and follow-up plan. Justify their clinical reasoning during a short viva. Reference materials are not permitted. Instructions to Teachers: Prepare standardized simulated scenarios representing common pediatric cardiovascular problems like congestive heart failure, congenital heart defects, arrhythmias etc.,. Students should be observed during patient interaction for communication, clinical logic, and examination skills. Evaluate the diagnostic process, accuracy of management planning, and ability to explain prognosis. Use checklists and structured rubrics for consistency. Mark Distribution: Total marks: 25. Case History and Symptom Extraction – 7 marks; Clinical Diagnosis and Classification – 6 marks; Management Plan (Medical/Procedural) – 6 marks; Prognosis and Preventive Follow-Up – 3 marks; Communication and Viva Interaction – 3 marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	
Semester No : 4	

Module 27 : Gastrointestinal system and Renal system

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

Describe types, causes, and management of pediatric diarrheal and gastrointestinal illnesses.
Describe clinical features and treatment strategies for hepatic and peritoneal disorders in children.
Identify congenital and acquired renal diseases and their diagnostic approaches.
Discuss management of pediatric renal failure, tubulointerstitial disease, and autoimmune nephritis.
Evaluate urinary tract infections, voiding disorders, and associated investigations.
Integrate diagnostic and therapeutic knowledge for gastrointestinal and renal disorders in pediatric practice.

M 27 Unit 1 Gastrointestinal Disorders

27.1.1 Diarrheal Illnesses – Acute watery diarrhea, dysentery, persistent and chronic diarrhea, etiological agents, dehydration assessment, rehydration therapy, zinc supplementation, hygiene practices.
27.1.2 Hernia – Inguinal hernia, umbilical hernia, clinical signs, reducibility, incarceration risk, surgical indications, non-operative observation, postoperative care protocols.
27.1.3 Inflammatory Bowel Disease – Ulcerative colitis, Crohn’s disease, chronic inflammation, abdominal pain, blood in stool, endoscopy findings, immunosuppressive therapy, relapse prevention.
27.1.4 Ano-rectal Disorders – Anal fissure, hemorrhoids, pilonidal sinus, rectal bleeding, pain during defecation, conservative care, surgical indications, recurrence prevention.
27.1.5 Common Gastrointestinal Illnesses – Gastroesophageal reflux, functional abdominal pain, cyclic vomiting, constipation, appendicitis, diagnostic tools, therapeutic approaches, dietary modification.

References: 39,40,43,44,64,67,104,128

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

CO2,CO4,CO6	Demonstrate rehydration and management techniques for diarrheal illnesses.	2	Practical Training 27.1	PSY-GUD	Shows-how	CBL,D,SIM
CO2,CO5,CO7	Describe causes, diagnosis, management of diarrheal illnesses and pediatric hernias.	1	Lecture	CC	Knows-how	L&GD,L_VC
CO2,CO5,CO7	Develop an understanding of managing various diarrheal illnesses	3	Experiential-Learning 27.1	PSY-GUD	Knows-how	D,SIM,PAL
CO2,CO4,CO6	Demonstrate clinical assessment and management of pediatric hernias.	2	Practical Training 27.2	PSY-GUD	Shows-how	CBL,CD,D-M,D-BED,SIM
CO2,CO5,CO7	Analyze pediatric hernia cases and decide on management strategies	2	Experiential-Learning 27.2	AFT-VAL	Does	RP,CBL,C_L,DIS
CO2,CO4,CO6	Perform clinical evaluation of common pediatric gastrointestinal disorders.	2	Practical Training 27.3	PSY-GUD	Shows-how	D-BED,RLE,CBL
CO2,CO5,CO7	Demonstrate pediatric anorectal examination, caregiver communication, and symptom relief strategies	3	Experiential-Learning 27.3	AFT-VAL	Does	RP,PAL,D-BED
CO1,CO2,CO4	Describe causes, diagnosis, and management of Inflammatory Bowel Disease (IBD), ano-rectal, and gastrointestinal disorders.	1	Lecture	CK	Know	L&GD,C_L

M 27 Unit 2 Hepatobiliary Diseases

27.2.1 Hepatitis – Viral hepatitis, autoimmune hepatitis, drug-induced liver injury, jaundice, hepatomegaly, liver enzymes, antiviral therapy, complication monitoring.
27.2.2 Diseases of the Peritoneum – Ascites, peritonitis, abdominal distension, fever, tenderness, paracentesis, antibiotic therapy, supportive management.
27.2.3 Liver Diseases – Acute liver failure, chronic liver disease, portal hypertension, cholelithiasis, hepatic encephalopathy, pathophysiology, clinical signs,

intervention strategies.
27.2.4 Liver Abscess & Liver Tumor – Pyogenic and amebic liver abscess, hepatoblastoma, imaging features, drainage techniques, chemotherapy, surgical options.
27.2.5 Investigations – Liver function tests (LFTs), ultrasound, Fibroscan, endoscopy, biochemical markers, hepatic imaging interpretation, disease monitoring protocols.

References: 39,40,43,44,64,67,104,128

3A	3B	3C	3D	3E	3F	3G
CO2,CO4,CO6	Demonstrate clinical evaluation and management of pediatric hepatitis.	2	Practical Training 27.4	PSY-MEC	Shows-how	LRI,SIM,CBL,D-BED
CO2,CO5,CO7	Describe etiology, diagnosis, and management of hepatitis and peritoneal diseases.	1	Lecture	CK	Knows-how	L&GD,L_VC
CO2,CO4,CO6	Demonstrate clinical skills in diagnosing and managing pediatric liver diseases.	2	Practical Training 27.5	PSY-MEC	Shows-how	CBL,SIM,LRI,L_VC,D-M
CO2,CO5,CO7	Arrange Lab Visits and Interpret Liver Function Tests and Diagnostic Imaging.	3	Experiential-Learning 27.4	AFT-VAL	Knows-how	SDL,DL,RLE,CBL
CO1,CO2,CO5	Describe the pathophysiology, diagnosis, and management of liver diseases and tumors.	1	Lecture	CS	Know	L&GD,C_L
CO1,CO2,CO5	Interpret liver function tests and imaging techniques for liver disease diagnosis.	1	Lecture	CK	Know	C_L,L&GD,L_VC

M 27 Unit 3 Disorders of the Kidney

27.3.1 Congenital Anomalies of Kidneys – Cystic kidney disease, renal dysplasia, hydronephrosis, urinary tract malformations, antenatal diagnosis, imaging, genetic screening, surgical planning.

27.3.2 Glomerular Disease – Glomerulonephritis, IgA nephropathy, Alport syndrome, hematuria, proteinuria, renal biopsy, immunosuppressive therapy, prognosis assessment.
27.3.3 Renal Failure – Acute kidney injury (AKI), chronic kidney disease (CKD), end-stage renal disease (ESRD), uremic symptoms, dialysis, renal transplantation, monitoring.
27.3.4 Tubulointerstitial Disease – Pyelonephritis, tubulointerstitial nephritis, acute tubular necrosis, fever, flank pain, urinalysis, imaging studies, antibiotic protocols.
27.3.5 Systemic Vasculitis and Lupus Nephritis – Systemic lupus erythematosus, vasculitic syndromes, renal involvement, complement levels, immunologic markers, corticosteroids, long-term renal care.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe congenital kidney anomalies, glomerular diseases, diagnosis, and management strategies.	1	Lecture	CK	Knows-how	L&GD,TUT,L_VC
CO2,CO4,CO6	Interpret and present clinical findings in glomerular disorders with guided analysis.	2	Practical Training 27.6	PSY-GUD	Shows-how	SIM,D-BED,LRI,DIS
CO2,CO4,CO6	Demonstrate readiness to assess and manage pediatric renal failure cases.	2	Practical Training 27.7	PSY-SET	Shows-how	W,D-BED,PBL,SIM,LRI
CO2,CO5,CO7	Assess pediatric renal therapy with emphasis on care and support	3	Experiential-Learning 27.5	PSY-GUD	Shows-how	SIM,CBL,FV
CO2,CO5,CO7	Analyze interdisciplinary care in pediatric systemic renal disorders	3	Experiential-Learning 27.6	CAN	Does	TBL,RLE,CBL
CO1,CO2,CO5	Describe renal failure, tubulointerstitial diseases, vasculitis, lupus nephritis, and management.	1	Lecture	CC	Knows-how	L&GD,C_L

M 27 Unit 4 Disorders of the Urinary Tract

27.4.1 Infections – Urinary tract infections (UTIs), cystitis, urethritis, pyelonephritis, fever, dysuria, urine culture, antimicrobial therapy, recurrence prevention.
27.4.2 Vesicoureteral Reflux – Pathophysiology, grading of reflux, imaging modalities, recurrent UTI risk, prophylactic antibiotics, surgical and non-surgical interventions.
27.4.3 Voiding Disorders – Daytime incontinence, urgency, enuresis, dysfunctional voiding, behavioral therapy, bladder training, pharmacologic management.
27.4.4 Renal Calculi – Pediatric nephrolithiasis, metabolic causes, hematuria, ultrasound detection, dietary prevention, hydration, lithotripsy, surgical removal.
27.4.5 Investigations – Renal function tests, urine microscopy, culture, imaging techniques, ultrasound, DMSA scan, voiding cystourethrogram (VCUG), diagnostic pathways.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe Urinary Tract Infections (UTI) , vesicoureteral reflux, pathophysiology, diagnosis, and management strategies.	1	Lecture	CC	Knows-how	DIS,L_VC
CO2,CO4,CO6	Perform guided assessment and management of pediatric Urinary Tract Infections (UTI) cases.	2	Practical Training 27.8	PSY-GUD	Shows-how	D-BED,SIM,CBL,RLE
CO2,CO4,CO6	Perform guided clinical assessment of pediatric voiding disorders.	2	Practical Training 27.9	PSY-GUD	Shows-how	CBL,D-M,SIM,SDL
CO2,CO5,CO7	Manage pediatric voiding disorders	3	Experiential-Learning 27.7	AFT-VAL	Does	SIM,D,CBL,RP
CO2,CO5,CO7	Formulate dietary, preventive, and treatment strategies for managing and preventing renal calculi recurrence.	3	Experiential-Learning 27.8	AFT-VAL	Shows-how	DIS,BS,RLE,PSM,BL
CO2,CO5,CO7	Develop skills to interpret renal function tests and imaging results.	3	Experiential-Learning 27.	AFT-VAL	Shows-how	CBL,LRI

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CO1,CO2,CO7	Describe voiding disorders, renal calculi, causes, diagnosis, and management approaches.	1	Lecture	CC	Knows-how	L_VC,SDL,PAL
CO1,CO2,CO7	Describe renal function tests, urine analysis, and advanced imaging techniques.	1	Lecture	CC	Knows-how	SDL,PL,C_L
CO2,CO4,CO6	Perform guided evaluation and propose management for renal calculi.	2	Practical Training 27.10	PSY-GUD	Shows-how	PAL,PER,D,CBL,SIM

Practical Training Activity

Practical Training 27.1 : Clinical Assessment and Management of Pediatric Diarrheal Illnesses

Total Duration of the Activity: 2 Hours
This session trains students to clinically classify diarrhea into acute watery, dysentery, persistent, and chronic types. Students will assess symptoms, determine dehydration severity, and administer oral and IV rehydration appropriately. They will practice Oral Rehydration Solution(ORS) preparation, discuss antibiotic and zinc therapy indications, and reinforce preventive strategies including hygiene, sanitation, and public health education.
Instructions to Students (First 20 Minutes): Teacher will explain World Health Organization (WHO) diarrhea classification and demonstrate dehydration assessment and ORS/IV fluid administration. Students should review signs like sunken eyes, skin turgor, and lethargy, and understand protocols for rehydration and when pharmacological treatment is warranted.
Students' Activities
Step 01 (First 40 Minutes): Students will examine a simulated pediatric patient for dehydration. They will classify the case and document findings using a standard fluid management chart. Students will prepare and administer Oral Rehydration Solution(ORS) using correct technique and dosage.
Step 02 (Next 40 Minutes): In small groups, students will analyze a case of persistent or chronic diarrhea. They will prepare a presentation detailing the diagnosis, treatment plan (including antibiotics, micronutrient support), and preventive strategies such as safe water use and hand hygiene practices.
Assessment Methods (Final 20 Minutes): Teacher will use a checklist to observe Oral Rehydration Solution(ORS) preparation and fluid administration. Practical viva will assess knowledge of diarrhea classification, dehydration severity, and treatment planning. Group presentations will be evaluated for clarity, diagnostic reasoning, and integration of preventive measures.

Practical Training 27.2 : Clinical Examination and Management Planning of Pediatric Hernias

Total Duration of the Activity: 2 Hours

This practical session introduces students to the clinical evaluation of inguinal and umbilical hernias in children. Students will observe and perform structured examinations to assess reducibility, tenderness, and signs of incarceration. They will discuss diagnosis, management options including timing of surgery, and conservative care. The session also includes patient education and counseling components.
Instructions to Students (First 20 Minutes): Teacher will conduct a demonstration on identifying and palpating hernias using clinical and model-based examples. Students should note the typical presentation during crying or straining and understand key concepts such as reducibility and complications. They are expected to document observations and prepare for hands-on assessment.
Students' Activities
Step 01 (First 40 Minutes): Students will perform physical examination of real or simulated pediatric patients with hernias. They will record findings such as size, reducibility, tenderness, and signs of incarceration. Using a structured checklist, students will propose a provisional diagnosis and stage the hernia condition.
Step 02 (Next 40 Minutes): Students will participate in case discussions to decide between conservative and surgical approaches based on clinical findings. Each group will prepare a care plan, including follow-up advice, surgical indications, parental guidance, and postoperative care.
Assessment Methods (Final 20 Minutes): Teacher will use a checklist to assess hernia examination skills and documentation accuracy. A Mini-CEX will evaluate diagnostic reasoning and patient communication. Practical viva will cover differentiation between hernia types and justifications for treatment decisions.

Practical Training 27.3 : Clinical Evaluation and Integrative Management of Pediatric Gastrointestinal Disorders

Total Duration of the Activity: 2 Hours
This session trains students to clinically evaluate common pediatric gastrointestinal disorders including Gastroesophageal Reflux Disease (GERD), constipation, functional abdominal pain, cyclic vomiting, and appendicitis. Students will learn to perform focused abdominal examinations, interpret symptom patterns, and formulate differential diagnoses. They will develop holistic treatment plans incorporating both modern and Siddha-based approaches tailored to pediatric care.
Instructions to Students (First 20 Minutes): Teacher will provide a clinical overview of pediatric Gastrointestinal disorders and demonstrate abdominal examination techniques. Students must observe key signs such as tenderness, bloating, or localized guarding and learn to distinguish functional vs. organic causes. Prepare to perform structured clinical evaluations and formulate comprehensive management plans.
Students' Activities
Step 01 (First 40 Minutes): In pairs, students will assess simulated or real pediatric cases. They will conduct abdominal examination, identify presenting symptoms, and document findings. Using diagnostic reasoning, they will prepare a list of differential diagnoses for each case.
Step 02 (Next 40 Minutes): Students will design integrative management plans incorporating medical interventions, dietary and lifestyle changes, and applicable Siddha strategies. They will present these plans during peer discussion, justifying their approach based on clinical and classical guidelines.
Assessment Methods (Final 20 Minutes): Students will be assessed using Mini-CEX for clinical communication and diagnostic logic. Practical case-taking will be reviewed for thoroughness and accuracy. Scenario-based assessment will test understanding of diagnosis and appropriateness of integrative management strategies.

Practical Training 27.4 : Clinical Identification and Management of Pediatric Hepatitis

Total Duration of the Activity: 2 Hours
This session trains students to evaluate pediatric hepatitis, distinguishing between viral, autoimmune, and drug-induced types. Students will learn structured history-taking, clinical signs (e.g., jaundice, hepatomegaly), and perform liver palpation. They will interpret liver function tests and propose appropriate treatment plans including supportive care, antiviral therapy (if indicated), and monitoring for complications.
Instructions to Students (First 20 Minutes): Teacher will provide an overview of hepatitis types and demonstrate liver palpation techniques. Students must observe symptoms such as jaundice, fatigue, or abdominal pain and review how to interpret Liver Function Test (LFT). Prepare to conduct clinical examination and analyze lab data to formulate treatment strategies.
Students' Activities
Step 01 (First 40 Minutes): Students will examine a simulated pediatric patient presenting with hepatitis symptoms. They will take a focused history covering infection exposure, drug history, and systemic complaints. Physical examination will focus on liver size, tenderness, and other systemic signs.
Step 02 (Next 40 Minutes): Students will interpret sample Liver Function Test (LFT) reports and combine findings with clinical observations to determine the likely type of hepatitis. They will draft a treatment plan involving supportive care, antiviral or immunosuppressive measures (as applicable), and complication monitoring.
Assessment Methods (Final 20 Minutes): Students will be evaluated through a Mini-CEX covering examination and case discussion. Lab interpretation skills will be assessed for accuracy. A short viva will test knowledge of hepatitis types, clinical reasoning, and rationale for therapeutic choices.

Practical Training 27.5 : Clinical Identification and Management of Pediatric Liver Disorders

Total Duration of the Activity: 2 Hours
This practical trains students to evaluate pediatric liver disorders by combining clinical history-taking, physical examination, and interpretation of laboratory and imaging findings. Conditions include acute and chronic liver disease, portal hypertension, liver abscess, hepatoblastoma, and gallstones. Students will learn to assess hepatomegaly, ascites, jaundice, and coagulopathy, and propose medical or surgical management strategies.
Instructions to Students (First 20 Minutes): Teacher will demonstrate liver examination techniques and interpretation of Liver Function Test (LFT) and ultrasound findings. Students should observe signs like Right Upper Quadrant (RUQ) tenderness, hepatomegaly, and jaundice. Understand key features of cirrhosis, liver tumors, and gallstones. Prepare for focused assessment and diagnostic reasoning.
Students' Activities
Step 01 (First 40 Minutes): Students will evaluate a real or simulated pediatric liver case. They will perform physical assessment including palpation for liver size and ascites. Clinical signs such as jaundice and bleeding tendencies will be documented. Students will interpret Liver Function Test (LFT) reports for bilirubin, transaminases, and INR.
Step 02 (Next 40 Minutes): Students will formulate a diagnosis based on findings and draft a management plan that includes medical therapy or surgical referral. They will distinguish between liver abscess and tumors and recommend supportive measures. Students will share findings and compare management approaches in peer groups.
Assessment Methods (Final 20 Minutes): Teacher will assess liver examination technique and interpretation skills using Mini-CEX. Practical viva will evaluate understanding of pediatric liver conditions and clinical decision-making. Checklist-based assessment will ensure completeness in diagnosis and proposed management plans.

Practical Training 27.6 : Clinical Evaluation and Management of Pediatric Glomerular Diseases

Total Duration of the Activity: 2 Hours
This session allows students to assess and manage pediatric glomerular diseases such as glomerulonephritis, IgA nephropathy, and Alport syndrome. Students will perform focused history-taking, physical examination for signs like edema and hypertension, and interpret lab results including urinalysis and renal function tests. Renal biopsy findings and treatment planning will be discussed to enhance diagnostic reasoning and management skills.
Instructions to Students (First 20 Minutes): Teacher will brief students on clinical features and diagnostic criteria for glomerular diseases. Demonstration will include proper urine dipstick testing, edema examination, and interpretation of biopsy findings. Students should prepare to apply knowledge in case-based discussions and diagnosis.
Students' Activities (Next 80 mins - 40 mins + 40 mins)
Step 01 (First 40 Minutes): Students will examine simulated or real pediatric cases of suspected glomerular pathology. They will document history, identify key signs such as hematuria, proteinuria, edema, and analyze urinalysis and creatinine reports. Differential diagnosis should be outlined clearly.
Step 02 (Next 40 Minutes): Students will prepare a structured case report detailing findings, diagnosis, and management strategy. They will include relevant treatment options like immunosuppressants and antihypertensives, and propose long-term follow-up. Reports will be presented and discussed in peer groups.
Assessment Methods (Final 20 Minutes): Teacher will assess case reports for diagnostic accuracy and treatment clarity. Practical viva will evaluate clinical reasoning and disease-specific knowledge. A case-based checklist will be used to assess lab interpretation and application to patient care.

Practical Training 27.7 : Clinical Examination and Management of Pediatric Renal Failure

Total Duration of the Activity: 2 Hours
This session offers hands-on exposure to pediatric renal failure, including acute kidney injury (AKI), chronic kidney disease (CKD), and end-stage renal disease (ESRD). Students will assess clinical signs such as oliguria, edema, hypertension, and growth failure. They will interpret renal function tests (creatinine, BUN, electrolytes) and explore when to recommend conservative therapy, dialysis, or transplantation.
Instructions to Students (First 20 Minutes): Teacher will demonstrate renal function assessment methods and dialysis setup. Students should observe signs such as edema and reduced urine output, and understand staging of kidney disease. Be prepared to evaluate case scenarios and discuss treatment options.
Students' Activities
Step 01 (First 40 Minutes): Students will evaluate a simulated or real pediatric renal failure case. They will collect history including risk factors like nephrotoxins or infections, and interpret lab tests (creatinine, Blood Urea Nitrogen, electrolytes) to stage the disease.
Step 02 (Next 40 Minutes): Students will draft a comprehensive management plan outlining stage-specific therapy, including lifestyle modifications, pharmacological management, dialysis indications, and transplant consideration. Teams will present their plans and justify decisions based on clinical findings.
Assessment Methods (Final 20 Minutes): Teacher will assess students using a checklist and DOPS during case interaction. Practical viva will test knowledge of renal failure classification, interpretation of diagnostics, and treatment planning including dialysis and transplantation readiness. Lab interpretation accuracy will also be evaluated.

Practical Training 27.8 : Clinical Approach to Pediatric Urinary Tract Infections (UTIs)

Total Duration of the Activity: 2 Hours
This practical introduces clinical methods for diagnosing and managing pediatric urinary tract infections, including cystitis, urethritis, and pyelonephritis. Students will perform history-taking, analyze urine samples, interpret lab findings, and distinguish between upper and lower tract infections. They will then plan antibiotic therapy, hydration strategies, and preventive measures for recurrence control.
Instructions to Students (First 20 Minutes): Teacher will demonstrate sample collection methods, urinalysis interpretation, and clinical signs of Urinary Tract Infections (UTI) . Students should review symptom patterns, understand indications for culture/imaging, and prepare to assess cases and propose treatment options.
Students' Activities
Step 01 (First 40 Minutes): Students will conduct mock history-taking and physical examinations for suspected Urinary Tract Infections (UTI) cases. They will review and interpret urine analysis and culture reports to classify the infection as upper or lower tract.
Step 02 (Next 40 Minutes): Students will prepare and present individualized management plans, including antibiotic selection, hydration, and follow-up care. They will discuss preventive strategies like hygiene education, recurrence monitoring, and behavioral counseling in peer groups.
Assessment Methods (Final 20 Minutes): Teacher will assess diagnostic skills through checklists and DOPS during case discussions. Students will face a brief viva to evaluate their clinical judgment in antibiotic selection and preventive care recommendations. Lab interpretation accuracy will also be reviewed.

Practical Training 27.9 : Clinical Presentation and Management of Pediatric Voiding Disorders

Total Duration of the Activity: 2 Hours
This practical focuses on the clinical identification and management of pediatric voiding disorders such as dysfunctional voiding, overactive bladder, and urinary incontinence. Students will learn to take relevant bladder history, interpret voiding diaries and uroflowmetry, and perform mock physical exams. They will present complete management strategies integrating behavioral therapy, pharmacological support, and structured follow-up.
Instructions to Students (First 20 Minutes): Teacher will explain the clinical types of voiding disorders and demonstrate bladder history-taking, voiding diary interpretation, and uroflowmetry basics. Students should focus on identifying key symptoms, assessing contributing factors, and preparing to design an individualized treatment approach.
Students' Activities
Step 01 (First 40 Minutes): Students will engage in case-based discussions of simulated pediatric patients with voiding complaints. They will conduct mock interviews and physical examinations, analyze diary patterns, and document symptom categories and diagnostic indicators.
Step 02 (Next 40 Minutes): Students will propose management plans including lifestyle modifications, bladder retraining exercises, pharmacological support, and caregiver education. Peer discussions will help refine understanding and practical planning in voiding dysfunction management.
Assessment Methods (Final 20 Minutes): Teacher will assess using a DOPS checklist during case presentations and mock assessments. Practical viva will test students' clinical reasoning, clarity in diagnosis, and formulation of management strategies. Peer-reviewed participation will also be considered.

Practical Training 27.10 : Clinical Assessment and Management of Pediatric Renal Calculi

Total Duration of the Activities: 2 hours

This session focuses on recognizing renal calculi in children through clinical history-taking, physical examination, and imaging interpretation. Students will assess symptoms such as hematuria, flank pain, dysuria, and vomiting. Demonstrations will cover key examination techniques and interpretation of urine analysis and imaging findings. The session culminates in the formulation of individualized treatment plans including hydration therapy, dietary modifications, pharmacologic management, and referral for surgical intervention where appropriate.
Instructions to Students (First 20 Minutes): Observe clinical demonstrations on real or simulated pediatric cases with suspected renal stones. Focus on history elements including dietary habits, fluid intake, infection history, and family predisposition. Learn how to assess physical signs and interpret urine analysis and imaging results. Prepare for group-based clinical discussions and case management exercises.
Students' Activities (Next 40 Minutes + 40 Minutes):
Step 01 (First 40 Minutes): In small groups, review case scenarios or examine simulated pediatric patients. Identify signs and symptoms such as flank tenderness, abdominal pain, hematuria, or urinary retention. Document findings and suggest preliminary diagnostic impressions based on clinical and imaging data.
Step 02 (Next 40 Minutes): Formulate appropriate management plans tailored to the case severity. Include hydration strategies, pain relief, dietary modifications (e.g., calcium, oxalate, sodium restriction), and pharmacologic agents such as potassium citrate or thiazide diuretics. Identify red flags indicating need for imaging, urology referral, or interventions like lithotripsy.
Assessment Methods (Final 20 Minutes): Students will be assessed through observation using structured checklists and evaluated in a short viva. Key evaluation points include clinical reasoning, diagnostic accuracy, understanding of treatment indications, and ability to plan referral pathways. Scenario-based questions will test application of modern pediatric nephrology principles.

Experiential learning Activity

Experiential-Learning 27.1 : Management of Diarrheal Illnesses: understand the Rehydration Techniques, Dietary Adjustments, and Public Health Measures

Total Duration of the Activities 3 Hours
Students will learn clinical and public health aspects of managing pediatric diarrheal diseases. The hands-on session will include practice in oral rehydration therapy, intravenous fluid calculation (if needed), dietary modification, and hygiene education. Case-based simulations will provide practical context, and discussions will emphasize the role of prevention in community health.
Instructions to Students (First 30 Minutes) Teacher will demonstrate Oral Rehydration Therapy (ORT) preparation, Intravenous fluid calculation, and dietary strategies for diarrhea types. Students will be briefed on hygiene and sanitation protocols. Case scenarios will be distributed, covering acute watery diarrhea, dysentery, and chronic diarrhea. Be ready to apply these protocols in simulation and group discussions.
Students' Activities (Next 120 Minutes)
Step 01 (First 60 Minutes) Students will practice preparing Oral Rehydration Therapy (ORT), calculating Intravenous fluids when indicated, and planning dietary regimens based on case scenarios. Emphasis will be on appropriate technique, pediatric dosing, and nutritional support during illness.
Step 02 (Second 60 Minutes) Students will document their case management strategies and participate in a peer discussion on the impact of handwashing, clean water, and sanitation in diarrhea prevention. Preventive strategies will be integrated into the management plan.

Assessment (Final 30 Minutes) Teacher will assess accuracy in Oral Rehydration Therapy (ORT)/ Intravenous fluid preparation and clarity in dietary planning using a checklist. Students will participate in a practical viva on case-based management and hygiene promotion. Group discussions will be reviewed for insight into public health awareness and the practical application of diarrhea control measures.

Experiential-Learning 27.2 : Case-Based Workshop on Pediatric Inguinal and Umbilical Hernias

Total Duration of the Activities 2 Hours
Procedure
This interactive session allows students to review real pediatric hernia cases and differentiate between inguinal and umbilical presentations. Students will assess symptoms, identify surgical indications, and decide on observation versus intervention. Emphasis is placed on clinical reasoning, safety, caregiver communication, and post-operative care for optimal patient outcomes.
Instructions to Students (First 20 Minutes) Teacher will introduce hernia types and discuss signs like reducibility, bulging, and pain. Students will receive case scenarios with clinical, diagnostic, and follow-up details. Focus on recognizing red flags, documenting management pathways, and preparing education plans for caregivers in both surgical and non-surgical scenarios.
Students' Activities (Next 80 Minutes)
Step 01 (First 40 Minutes) Analyze each case to identify type of hernia, urgency indicators, and evaluate diagnostic findings. Document whether surgery is immediately required or observation is suitable. Outline differential diagnosis if needed.
Step 02 (Next 40 Minutes) Summarize findings into a care plan and present to your peer group. Discuss decision-making logic and post-operative counseling points. Collaboratively develop educational advice for parents, focusing on symptoms of recurrence and when to seek urgent care.
Assessment (Final 20 Minutes) Teacher will assess clinical reasoning, presentation clarity, and appropriateness of intervention decisions using a checklist and viva. Peer feedback will evaluate group contribution and communication. Special attention will be given to caregiver education quality, understanding of complications, and selection of timely intervention strategies.

Experiential-Learning 27.3 : Role-Play and Simulation on Pediatric Anorectal Disorder Management

Total Duration of the Activities 3 Hours
Students will engage in role-play and simulation to manage pediatric anorectal disorders such as anal fissures, hemorrhoids, and rectal prolapse. The activity includes caregiver education, physical examination techniques, emotional support, and case documentation. Emphasis is on communication, early diagnosis, and lifestyle-based preventive strategies to reduce complications.
Instructions to Students (First 20 Minutes) Teacher will explain approaches for sensitive communication during pediatric anorectal exams. Students will review symptom-focused care, hygiene measures, and lifestyle modifications. Observe examination techniques and prepare for respectful, empathetic interaction through role-play and hands-on activities.
Students' Activities (Next 140 Minutes)

Step 01 (First 70 Minutes) Students will conduct role-plays, alternating roles as practitioners and caregivers. They will practice counseling on symptom relief, demonstrate examination positioning, and document patient behavior, symptom patterns, and communication strategies used.
Step 02 (Second 70 Minutes) Students will reflect on the communication challenges encountered, write diagnostic pathways, and prepare brief care plans for anorectal conditions. Group discussions will consolidate insights into practical management and parental support.
Assessment (Final 20 Minutes) Teacher will assess communication, examination skill, and practical reasoning using DOPS and role-play feedback. Students will be evaluated on empathy, clarity, diagnostic accuracy, and planning for symptom relief and prevention. Peer feedback will reinforce collaborative learning and help identify areas for improvement.

Experiential-Learning 27.4 : Visits to the laboratory and the interpretation of liver function tests and diagnostic imaging.

Total Duration of the Activities 3 Hours
Students will visit diagnostic and imaging facilities to observe and analyze pediatric liver function tests and hepatobiliary imaging techniques (ultrasound, Fibroscan, endoscopy). They will correlate abnormal test values and imaging findings with liver diseases such as hepatitis, cholestasis, and fibrosis. The goal is to improve diagnostic reasoning and understand how tests guide therapy.
Instructions to Students (First 20 Minutes)
Teacher will brief students on the interpretation of Liver Function Test (LFT) parameters and common imaging modalities used in pediatric hepatobiliary disorders. Learn the significance of abnormal values and imaging patterns in diagnosing liver pathologies. Prepare to document and present clinical correlations.
Students' Activities (Next 140 Minutes)
Step 01 (First 70 Minutes): Analyze provided Liver Function Test (LFT) reports from pediatric cases. Match abnormal values to possible liver conditions and document your interpretation using structured templates. Discuss observations with peers and clarify doubts with the teacher.
Step 02 (Next 70 Minutes): Interpret real or sample imaging findings from ultrasound, Fibroscan, or endoscopy reports. Correlate structural or fibrosis changes with Liver Function Test (LFT) patterns and clinical symptoms. Prepare a diagnostic summary and outline follow-up recommendations.
Assessment (Final 20 Minutes): Teacher will assess the accuracy of students Liver Function Test (LFT) and imaging interpretations using a structured checklist. Case discussions and viva will evaluate clinical reasoning, integration of test results, and ability to propose relevant diagnoses and management pathways. Log books will be reviewed for thoroughness and clarity.

Experiential-Learning 27.5 : Clinical Observation of Pediatric Dialysis and Transplant Care

Total Duration of the Activities 3 Hours
Students will observe clinical or simulated pediatric dialysis and transplant care. The session includes hemodialysis, peritoneal dialysis, fluid/dietary management, infection control, and transplant recovery. They will study pre- and post-procedure protocols, monitor pediatric-specific care, and examine family support practices. Emphasis is placed on documenting procedures and communication techniques.
Instructions to Students (First 20 Minutes) Teacher will conduct a short pre-briefing covering dialysis modalities, transplant aftercare, dietary and fluid regulations, and psychological support. Observe how patients are prepared and monitored during dialysis and transplant follow-up. Note patient responses, protocol adherence, and caregiver education practices. Follow ethical conduct and patient privacy throughout.
Students' Activities (Next 140 Minutes)
Step 01 (First 70 Minutes) Observe preparation and delivery of hemodialysis or peritoneal dialysis. Record the full sequence: access setup, monitoring vitals, fluid restriction, and nutrition guidance. Document infection control steps and nursing interventions.
Step 02 (Next 70 Minutes) Observe pediatric transplant recovery care. Focus on immunosuppressant administration, post-operative hygiene, dietary instructions, and psychological preparation. Note caregiver education strategies and family counseling by the health team.
Assessment (Final 20 Minutes) Teacher will assess each student using observation checklists and a short viva. Evaluation focuses on clarity of procedural documentation, understanding of patient care continuity, and recognition of the psychosocial needs of children and caregivers. Logbook entries and peer reflection will support the final assessment.

Experiential-Learning 27.6 : Observation of Pediatric Rheumatology Care in Systemic Vasculitis and Lupus Nephritis

Total Duration of the Activities 3 Hours
Students will observe clinical care in a pediatric rheumatology setting, focusing on systemic vasculitis and lupus nephritis. They will witness diagnosis through lab tests and imaging, and multidisciplinary management involving immunosuppressants, renal support, and patient education. Emphasis is placed on understanding how timely diagnosis and collaborative strategies improve long-term pediatric outcomes.
Instructions to Students (First 20 Minutes) Teacher will introduce clinical characteristics and diagnostic frameworks for systemic vasculitis and lupus nephritis. Students will be oriented to observe interdisciplinary roles during consultation, medication planning, and patient counseling. Focus on identifying diagnostic tools, renal indicators, and integrated care models. Maintain confidentiality and document structured findings.

Students' Activities (Next 140 Minutes)
Step 01 (First 70 Minutes) Observe patient assessments including laboratory review, renal evaluations, and medication protocols. Focus on diagnostic criteria, immunosuppressive planning, and specialist coordination among nephrology and rheumatology teams.
Step 02 (Next 70 Minutes) Prepare a summary highlighting diagnostic difficulties, multidisciplinary roles, and how early recognition alters outcomes. Reflect on caregiver education, monitoring schedules, and supportive strategies. Discuss in peer groups the systemic nature of these disorders and their renal implications.
Assessment (Final 20 Minutes) Teacher will assess students through observation logs and a brief viva. Students will be evaluated on their grasp of interdisciplinary roles, understanding of diagnostic procedures, and ability to articulate the importance of early intervention. Emphasis is on insight into collaborative care and structured reflection.

Experiential-Learning 27.7 : Management of Pediatric Voiding Disorders: Bladder Catheterization and Behavioral Therapy Techniques

Total Duration of the Activities 3 Hours
Students will undergo structured training on the assessment and management of pediatric voiding disorders. Activities include performing bladder catheterization on pediatric models and participating in role-plays to practice behavioral therapy and caregiver communication. The session integrates procedural proficiency with patient-centered care approaches to enhance clinical competence and empathy.
Instructions to Students (First 20 Minutes) Teacher will demonstrate pediatric bladder catheterization and therapeutic role-play. You will observe model-based instruction on sterile technique, infection control, and catheter types. Focus on indications, procedural confidence, and respectful communication during sensitive pediatric encounters. Prepare to practice both procedural and interpersonal skills during simulations.
Students' Activities (Next 140 Minutes)
Step 01 (First 70 Minutes) Practice catheterization techniques on pediatric anatomical models. Demonstrate correct steps, maintain sterile fields, ensure child safety, and apply infection control guidelines. Log procedures and note feedback from teacher.
Step 02 (Second 70 Minutes) Role-play behavioral therapy and caregiver counseling scenarios. Emphasize empathetic communication, patient education, and behavior modification techniques. Document a comprehensive care plan combining clinical and psychological strategies to improve bladder function.
Assessment (Final 20 Minutes) Teacher will assess students using DOPS and practical role-play tools. Evaluation includes procedural accuracy, adherence to safety norms, and communication effectiveness. Students will submit logbook entries and care plans for review. Emphasis is on integrated understanding of technical skill and patient-centered care.

Experiential-Learning 27.8 : Interactive Session on Dietary and Medical Management of Renal Calculi

Total Duration of the Activities 3 Hours
Students will actively engage in managing pediatric renal calculi through dietary assessment, treatment planning, and patient education. After reviewing dietary and hydration-related causes, students will evaluate real-life pediatric cases and prepare sample meal plans and management strategies. Emphasis is on practical decision-making, prevention, and long-term care to reduce recurrence risk.
Instructions to Students (First 20 Minutes) Teacher will explain key causes of pediatric renal stones, risk-enhancing food items, hydration recommendations, and treatment options including lithotripsy and surgery. Case files will be distributed. You will be guided on evaluating dietary risks and developing customized prevention and treatment plans.
Students' Activities (Next 140 Minutes)
Step 01 (First 70 Minutes) Review assigned cases to identify dietary and hydration patterns contributing to stone formation. Create a preventive dietary strategy and draft a pediatric-friendly sample meal plan for renal stone prevention.
Step 02 (Second 70 Minutes) Formulate a full management plan incorporating medical or surgical interventions (e.g., lithotripsy), hydration protocols, and follow-up guidelines. Collaborate in groups to role-play patient counseling and present your final plan to peers for feedback.
Assessment (Final 20 Minutes) Teacher will assess students through case presentations and group interaction, evaluating clarity in dietary analysis, treatment planning, and communication. Log book entries and a brief practical viva will validate student understanding of renal stone management, prevention, and recurrence strategies in pediatric care.

Experiential-Learning 27.9 : Laboratory and Imaging Interpretation in Pediatric Urinary Disorders

Total Duration of the Activities 3 Hours
Students will participate in a practical session interpreting renal function tests, urinalysis, and imaging findings including ultrasound and voiding cystourethrogram (VCUG). Through case-based scenarios, they will analyze symptoms, identify abnormal reports, and formulate diagnosis and treatment strategies. This session aims to build foundational diagnostic reasoning in pediatric urinary conditions.
Instructions to Students (First 20 Minutes) Teacher will demonstrate how to interpret Renal Function Test (RFTs) (serum creatinine, BUN, electrolytes), urinalysis (proteinuria, hematuria, specific gravity), and basic imaging (ultrasound, voiding cystourethrogram). Students will review sample cases and learn to correlate test results with pediatric symptoms. Prepare to document and discuss your diagnostic reasoning.

Students’ Activities (Next 140 Minutes)
Step 01 (First 70 Minutes) Analyze laboratory reports from assigned pediatric cases. Identify abnormal findings, compare them with reference values, and document diagnostic impressions. Discuss differential diagnoses in peer groups.
Step 02 (Next 70 Minutes) Interpret ultrasound and voiding cystourethrogram (VCUG) findings. Correlate imaging results with lab data and symptoms. Draft summary reports with final diagnosis and proposed management plans including investigations and follow-up.
Assessment (Final 20 Minutes) Teacher will assess diagnostic accuracy, interpretation clarity, and case summary quality. Log books and discussion performance will be reviewed. Practical viva will evaluate students’ ability to correlate lab and imaging findings with clinical symptoms and propose rational management strategies

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - 25 Marks - ABQ/ LAQ/SAQ & Section – B (Scenario-Based Assessment with Simulated Patient) This 25-mark scenario-based assessment evaluates the student's clinical reasoning and communication skills in managing pediatric gastrointestinal conditions. Students will engage with simulated patients presenting with symptoms such as diarrhea, constipation, hernia, or abdominal pain. They will interpret findings, identify conditions, and propose modern diagnostic and management strategies based on clinical relevance. Instructions to Students: Students will be given a pediatric case scenario involving gastrointestinal complaints (e.g., diarrhea, hernia, or abdominal pain). Perform structured case-taking using appropriate modern clinical methods. Propose differential diagnoses, justify investigation choices, and plan management (rehydration, diet, or referral). Explain your reasoning clearly in a viva. No reference material allowed. Instructions to Teachers: Design structured scenarios using standardized simulated pediatric patients. Evaluate students on history-taking, interpretation of clinical features, diagnosis formulation, and management planning. Use checklists to assess communication skills, logical reasoning, and application of pediatric protocols. Conduct a short viva to validate justification and professionalism. Mark Distribution : The total marks for this assessment are 25. Clinical History and Symptom Analysis carries 7 marks, Diagnostic Reasoning and Differential Identification is allotted 6 marks, Management Plan (Diet, Medication, Referral) receives 6 marks, while Communication with Simulated Patient/Caregiver and Viva Justification carry 3 marks each. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	4

Module 28 : Neurological & Neuromuscular disorders, Musculoskeletal system

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

Describe congenital and acquired pediatric neurological disorders including seizures and encephalopathies.
Describe pediatric stroke, CNS infections, vasculitis, and neuro-rehabilitation approaches.
Identify congenital muscle disorders, neuromuscular diseases, and their management in children.
Discuss the diagnosis and treatment of movement disorders and floppy infant syndrome.
Evaluate pediatric musculoskeletal conditions including fractures, scoliosis, and arthritis.
Integrate neurodevelopmental and orthopedic care strategies for holistic pediatric rehabilitation

M 28 Unit 1 Neurological Disorders I

28.1.1 Congenital Anomalies – Brain malformations, craniosynostosis, structural defects, genetic syndromes, neuroimaging, developmental delay, surgical correction, genetic counseling.
28.1.2 Seizures – Febrile seizures, epilepsy, status epilepticus, unprovoked seizures, EEG findings, acute management, antiepileptic drugs, long-term monitoring.
28.1.3 Headaches – Migraine, tension-type headache, secondary headache causes, aura, triggers, pharmacologic treatment, lifestyle modification, preventive care.
28.1.4 Encephalopathies – Cerebral palsy, autoimmune encephalitis, global developmental delay, hypotonia, multidisciplinary care, physiotherapy, early intervention.
28.1.5 Demyelinating Disorders – Optic neuritis, transverse myelitis, multiple sclerosis, motor and sensory deficits, MRI criteria, immunomodulatory therapy, relapse prevention.

References: 39,40,43,44,64,67,69,70,71,72,73,74,75,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe congenital brain anomalies, seizure disorders, and pediatric headache management strategies.	1	Lecture	CK	Knows-how	L_VC,L

CO2,CO4,CO6	Perform proficient Central nervous system (CNS) examination and case documentation in seizure disorders.	2	Practical Training 28.1	PSY-MEC	Shows-how	SIM,CBL,DIS,D-BED
CO2,CO5,CO6	Practice multidisciplinary strategies in pediatric encephalopathy care.	2	Practical Training 28.2	PSY-GUD	Shows-how	SIM,CBL,TBL,PAL
CO2,CO5,CO6	Perform neuro-assessment and plan care for demyelinating disorders.	2	Practical Training 28.3	PSY-GUD	Shows-how	D-M,CBL,SIM
CO2,CO5,CO7	Demonstrate empathetic care and apply lifestyle-based headache management	4	Experiential-Learning 28.1	AFT-VAL	Does	PrBL,RP,PL,DIS,RLE
CO2,CO5,CO7	Describe encephalopathies and demyelinating disorders with diagnostic and management approaches.	1	Lecture	CC	Know	IBL,C_L,L_VC

M 28 Unit 2 Neurological Disorders II

28.2.1 Stroke – Ischemic and hemorrhagic stroke, Bell's palsy, raised intracranial pressure, hemiparesis, neuroimaging, emergency care, neurological outcomes.
28.2.2 CNS Vasculitis – Inflammatory vasculopathies, autoimmune triggers, headache, seizures, angiographic findings, immunosuppressive agents, treatment protocols.
28.2.3 CNS Infections – Pyogenic meningitis, viral meningoencephalitis, neurocysticercosis, brain abscess, fever, altered sensorium, lumbar puncture, antimicrobial therapy.
28.2.4 Neuro-Rehabilitation – Spasticity management, traumatic brain injury, spinal cord injury, brachial plexus injury, physiotherapy, occupational therapy, assistive devices.
28.2.5 Movement Disorders – Chorea, dystonia, tremor, tics, Parkinsonism, basal ganglia dysfunction, diagnostic clues, pharmacologic and supportive therapies.

References: 39,40,43,44,64,67,69,70,71,72,73,74,75,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe pediatric stroke, Central nervous system (CNS) vasculitis, diagnosis, and	1	Lecture	CAN	Knows-	TBL,L_V

	management approaches comprehensively.				how	C,L&GD
CO2,CO4,CO6	Perform cranial nerve VII examination and plan management of Bell’s Palsy.	2	Practical Training 28.4	PSY-GUD	Shows-how	SIM,PAL,CBL,D-BED
CO2,CO4,CO6	Perform neurological examination and interpret Central nervous system (CNS) infection diagnostics.	2	Practical Training 28.5	CAP	Shows-how	D-BED,SIM,CBL
CO2,CO5,CO7	Perform motor examination and plan care for movement disorders.	2	Practical Training 28.6	PSY-GUD	Shows-how	D-BED,SIM,CBL
CO2,CO5,CO7	Design integrated neuro-rehabilitation plans for pediatric neurological conditions	4	Experiential-Learning 28.2	AFT-SET	Does	W,SIM,CBL,TBL
CO2,CO5,CO7	Analyze pediatric movement disorder patterns and develop integrative management plans	3	Experiential-Learning 28.3	AFT-VAL	Does	D,CBL,TBL,SIM
CO1,CO2,CO5	Describe Central Nervous System (CNS) infections, neuro-rehabilitation strategies, diagnosis, and holistic management approaches.	1	Lecture	CC	Know	PL,DIS,IBL
CO2,CO5,CO7	Describe movement disorders, causes, pathophysiology, clinical features, and management strategies.	1	Lecture	CK	Know	L_VC,C_L,SDL

M 28 Unit 3 Neuromuscular Disorders

28.3.1 Congenital Muscle Disorders – Congenital myopathies, arthrogryposis multiplex congenita, hypotonia, joint contractures, genetic testing, early intervention, physiotherapy protocols.
28.3.2 Muscular Dystrophies – Duchenne and Becker muscular dystrophy, progressive muscle weakness, creatine kinase levels, genetic confirmation, mobility aids, corticosteroid therapy.
28.3.3 Neuromuscular Transmission Disorders – Myasthenia gravis, spinal muscular atrophy, motor neuron disease, fatigability, EMG findings, immunotherapy, respiratory support.
28.3.4 Floppy Infant – Central vs peripheral hypotonia, delayed milestones, reflex assessment, neuroimaging, genetic workup, early stimulation, multidisciplinary

care.
28.3.5 Guillain-Barré Syndrome – Acute flaccid paralysis, ascending weakness, CSF analysis, nerve conduction studies, IVIG, physiotherapy, respiratory monitoring.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe congenital muscle disorders, muscular dystrophies, diagnosis, features, and management.	1	Lecture	CAP	Knows-how	SDL,PAL,L&GD
CO3,CO4,CO6	Perform neuromuscular assessments and propose supportive interventions.	2	Practical Training 28.7	PSY-SET	Shows-how	RLE,LRI,TUT,CBL,D-BED
CO3,CO4,CO6	Assess hypotonia and suggest early supportive interventions.	2	Practical Training 28.8	PSY-GUD	Shows-how	D-BED,TBL,SIM,CBL
CO2,CO5,CO7	Appraise the importance of multidisciplinary and empathetic care in managing congenital muscle disorders in children	4	Experiential-Learning 28.4	AFT-VAL	Shows-how	DIS,TBL,PAL
CO2,CO5,CO7	Apply clinical reasoning to diagnose and plan comprehensive care for pediatric neuromuscular transmission disorders	4	Experiential-Learning 28.5	AFT-RES	Does	TBL,DIS,CBL
CO1,CO2,CO5	Describe neuromuscular disorders, pathophysiology, diagnosis, treatment, and supportive care.	1	Lecture	CK	Know	C_L,DIS,PL
CO2,CO5	Describe floppy infant syndrome and Guillain-Barré syndrome diagnosis and management.	1	Lecture	CK	Know	L&GD,C_L,SDL

M 28 Unit 4 Musculoskeletal Disorders

28.4.1 Arthritis – Juvenile idiopathic arthritis, septic arthritis, joint swelling, morning stiffness, systemic features, laboratory markers, anti-inflammatory therapy, joint preservation.
28.4.2 Fractures – Pediatric fracture types, growth plate injuries, clinical signs, radiographic evaluation, immobilization techniques, remodeling potential, follow-up care.
28.4.3 Scoliosis and Kyphosis – Spinal curvature types, idiopathic and secondary causes, postural assessment, radiologic grading, bracing, surgical correction, rehabilitation.
28.4.4 Deformities of Foot and Toes – Congenital talipes equinovarus, metatarsus adductus, clinical examination, Ponseti method, serial casting, surgical indications.
28.4.5 Skeletal Dysplasia & Osteogenesis Imperfecta – Short stature, brittle bones, frequent fractures, genetic diagnosis, supportive orthopedics, bisphosphonates, mobility enhancement.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Identify juvenile idiopathic arthritis and pediatric fractures diagnosis and management.	1	Lecture	CAN	Knows-how	SDL,L&PPT
CO3,CO6,CO7	Demonstrate proper casting techniques for pediatric fracture care.	2	Practical Training 28.9	PSY-MEC	Shows-how	X-Ray,LRI,SIM,D-M
CO3,CO6,CO7	Perform foot examination and demonstrate conservative management of clubfoot.	2	Practical Training 28.10	PSY-MEC	Shows-how	CBL,SIM,TBL
CO2,CO5,CO7	Describe the management of scoliosis and kyphosis.	4	Experiential-Learning 28.6	AFT-CHR	Does	CBL,D-M,TBL
CO2,CO5,CO7	Demonstrate empathy and explain joint care strategies effectively	3	Experiential-Learning 28.7	AFT-SET	Does	RP,CBL,PAL

CO2,CO5,CO7	Describe scoliosis, kyphosis, foot deformities, skeletal dysplasia, and osteogenesis imperfecta management.	1	Lecture	CAN	Know	L&GD,PAL,C_L

Practical Training Activity

Practical Training 28.1 : Clinical Case Presentation and Central nervous system (CNS) Examination in Pediatric Seizure Disorders

Total Duration of the Activity: 2 Hours
This session enables students to perform comprehensive Central nervous system (CNS) examinations and take detailed clinical histories in children presenting with seizures. Students will learn to differentiate febrile seizures, epilepsy, and other unprovoked seizure types through clinical signs, history, and neurological findings. They will apply appropriate emergency management strategies and develop long-term care considerations while practicing case sheet documentation and communication.
Instructions to Students (First 20 Minutes): Teacher will demonstrate Central nervous system (CNS) examination techniques and guide history-taking focused on seizure onset, duration, type, and associated symptoms. Students will learn to document findings using structured formats and understand seizure classification and acute care protocols.
Students' Activities
Step 01 (First 40 Minutes): Students will conduct Central nervous system (CNS) examinations and obtain full histories from simulated or real pediatric seizure cases. They will identify clinical features to classify seizure types and differentiate between febrile, epileptic, and non-epileptic events. Each student will record findings systematically.
Step 02 (Next 40 Minutes): Students will write detailed case reports, including presenting history, Central nervous system (CNS) findings, classification, and provisional management. In small peer groups, students will discuss cases, refine documentation, and receive feedback to improve clinical reasoning and presentation clarity.
Assessment Methods (Final 20 Minutes): Teacher will assess the accuracy of Central nervous system (CNS) examination using a checklist, completeness of the case report, and classification accuracy of seizure type. Practical viva will test the rationale behind diagnosis, investigation needs, and management decisions. Peer and faculty feedback will support skill refinement.

Practical Training 28.2 : Clinical Assessment and Multidisciplinary Planning for Pediatric Encephalopathy

Total Duration of the Activity: 2 Hours
This session provides students with hands-on clinical exposure to pediatric encephalopathy, including conditions like cerebral palsy and autoimmune encephalopathies. It focuses on recognizing neurological deficits, documenting clinical signs, and creating multidisciplinary care plans. Students will simulate assessments, interpret reports (Magnetic Resonance Imaging, Electroencephalogram), and propose interventions, integrating both Siddha and modern modalities to improve outcomes.
Instructions to Students (First 20 Minutes): Teacher will introduce encephalopathy types and demonstrate neurological assessment techniques relevant to pediatric patients. Students will learn to identify signs such as spasticity, altered mental status, or developmental delays, and observe supportive care components like physiotherapy and cognitive aids.

Students' Activities
Step 01 (First 40 Minutes): Students will simulate the clinical examination of a child with suspected encephalopathy. They will document presenting history, conduct a focused neurological assessment, and identify deficits using case cues and sample reports. Observations will be recorded in structured proformas.
Step 02 (Next 40 Minutes): Students will collaboratively draft a multidisciplinary care plan that includes Siddha-based internal and external therapies, referrals to physiotherapy or occupational therapy, nutritional guidelines, and caregiver training. Each group will present their approach and receive peer and teacher feedback.
Assessment Methods (Final 20 Minutes): Assessment will include observation using a checklist for neurological examination accuracy, evaluation of the written care plan, and a short practical viva. Emphasis will be placed on diagnostic clarity, appropriateness of integrated management, and understanding of long-term care strategies.

Practical Training 28.3 : Clinical Evaluation and Management Planning in Pediatric Demyelinating Disorders

Total Duration of the Activity: 2 Hours
This session focuses on the clinical identification and treatment planning of pediatric demyelinating disorders such as optic neuritis, transverse myelitis, and multiple sclerosis. Students will assess neurological deficits through simulations, review Magnetic Resonance Imaging (MRI) and Cerebrospinal Fluid (CSF) data, and propose integrated treatment strategies combining modern immunotherapy and Siddha-based support. Emphasis will be placed on early diagnosis and multidisciplinary care coordination.
Instructions to Students (First 20 Minutes): Teacher will explain the key clinical features of demyelinating conditions. Students will observe simulated or recorded cases showing symptoms such as vision changes, limb weakness, and gait disturbances. Diagnostic interpretation of MRI and Cerebrospinal Fluid (CSF) findings will be introduced.
Students' Activities
Step 01 (First 40 Minutes): Students will conduct neurological assessments focusing on cranial nerve testing, motor strength, tone, and reflexes. Using provided case histories and investigations, they will identify signs of demyelination and suggest preliminary diagnoses.
Step 02 (Next 40 Minutes): Students will work in small groups to draft treatment plans. These should integrate modern management like corticosteroids or immunotherapy with supportive Siddha measures such as dietary guidance and herbal nervine support. Each group will present their plan and discuss care goals and challenges.
Assessment Methods (Final 20 Minutes): Teacher will evaluate neurological examination skills using a checklist, and assess reasoning and accuracy through Mini-CEX and viva. Students will be assessed on their diagnostic interpretation, logical flow in treatment planning, and understanding of interdisciplinary care.

Practical Training 28.4 : Clinical Evaluation and Management of Bell's Palsy in Pediatric Patients

Total Duration of the Activity: 2 Hours
This session introduces the clinical presentation of Bell's Palsy in children, focusing on facial nerve anatomy and peripheral versus central causes of facial paralysis. Students will learn the techniques for facial nerve assessment, including forehead wrinkling, eye closure, and smile symmetry. They will develop individualized treatment plans based on standard modern protocols involving corticosteroids, eye care, and physiotherapy.
Instructions to Students (First 20 Minutes): Observe a demonstration on examining the 7th cranial nerve. Pay close attention to techniques for identifying facial asymmetry,

voluntary muscle weakness, and signs differentiating upper and lower motor neuron lesions. Review diagnostic criteria, common etiologies, and the expected recovery timeline in children.
Students' Activities
Step 01 (Next 40 Minutes): Perform a complete cranial nerve VII examination on a peer or simulation model. Identify signs of lower motor neuron facial paralysis and record findings in a structured proforma. Use checklists to ensure a complete and standardized examination.
Step 02 (Next 40 Minutes): Based on the clinical findings, prepare a management plan including corticosteroid therapy, eye protection strategies (artificial tears, eye patching), and supportive measures such as facial exercises. Discuss prognosis and referral criteria in a small group presentation.
Assessment Methods (Final 20 Minutes): Teacher will evaluate students using DOPS to assess their examination technique and structured proformas for completeness. A viva voce will be conducted to test understanding of facial nerve anatomy, differentiation of Bell's Palsy from central causes, and appropriate therapeutic interventions.

Practical Training 28.5 : Clinical Evaluation and Management of Pediatric Central nervous system (CNS) Infections

Total duration of activity - 2 hours
This session focuses on the clinical identification, diagnostic work-up, and management of central nervous system infections in children, including acute bacterial meningitis, viral meningoencephalitis, neurocysticercosis, and brain abscess. Students will perform neurological examinations, interpret lumbar puncture and imaging findings, and propose evidence-based treatment strategies with an emphasis on early diagnosis and multidisciplinary care.
Instructions to Students (First 20 Minutes): Teacher will demonstrate signs of Central nervous system (CNS) infections such as altered consciousness, neck stiffness, and focal deficits. Review the steps of neurological examination, indications for lumbar puncture, and how to interpret Cerebrospinal Fluid (CSF) and imaging findings. Prepare to examine simulated cases and propose a management plan.
Students' Activities (Next 80 mins - 40 mins + 40 mins)
Step 01 (Next 40 Minutes): Students will evaluate a simulated or real pediatric case with suspected Central nervous system (CNS) infection. They will record vital signs, Glasgow Coma Scale (GCS) score, and neurological findings. Based on the findings, they will suggest investigations like Cerebrospinal Fluid (CSF) analysis and neuroimaging Computed Tomography/Magnetic Resonance Imaging.
Step 02 (Next 40 Minutes): Students will prepare a clinical management plan that includes antibiotic or antiviral selection, monitoring strategies, hydration and seizure control, and criteria for Intensive Care Unit (ICU) referral. They will discuss prevention strategies including vaccination, contact prophylaxis, and early detection during outbreaks.
Assessment Methods (Final 20 Minutes): Teacher will evaluate neurological examination skills using a checklist. Practical viva will test diagnostic reasoning, interpretation of lab and imaging findings, and clarity in formulating treatment strategies. Case documentation will be reviewed for accuracy and clinical logic.

Practical Training 28.6 : Clinical Evaluation and Management of Pediatric Movement Disorders

Total Duration of the Activities: 2 Hours
This session enables students to evaluate pediatric movement disorders, particularly dystonia and ataxia, using structured neurological examinations. Emphasis will be

placed on recognizing signs such as involuntary movements, gait abnormalities, muscle tone changes, and coordination deficits. Students will interpret clinical findings, identify probable etiologies, and plan evidence-based treatment strategies including pharmacological and rehabilitative approaches to improve motor function and quality of life.
Instructions to Students (First 20 Minutes): Observe live or simulated pediatric cases with movement abnormalities. Focus on identifying dystonia-related postures and ataxia-related gait or coordination issues. Teacher will demonstrate examination of tone, reflexes, and voluntary motor activity. Prepare to document findings and participate in diagnosis and care planning.
Students' Activities
Step 01 (Next 40 Minutes): In pairs, students will perform neurological assessments focused on motor control, balance, and involuntary movements. Use structured checklists to document findings such as postural abnormalities, tremors, or poor coordination. Discuss possible causes and differential diagnoses in small groups.
Step 02 (Next 40 Minutes): Students will formulate individualized treatment plans that include pharmacologic agents (e.g., anticholinergics, benzodiazepines), supportive therapies (physiotherapy, occupational therapy), and safety measures. They will simulate care tasks such as assisted walking or coordination training using practice models or demonstration kits.
Assessment Methods (Final 20 Minutes): Teacher will assess students through observation checklists during examinations, evaluation of case notes, and structured viva. Emphasis will be placed on accuracy of findings, appropriateness of treatment planning, and clarity in clinical communication.

Practical Training 28.7 : Clinical Assessment and Multidisciplinary Management of Pediatric Muscular Dystrophies

Total Duration of the activities: 2 hours
This session focuses on identifying and evaluating pediatric muscular dystrophies such as Duchenne and Becker types. Students will assess signs like Gower's sign, calf pseudohypertrophy, and proximal muscle weakness. Clinical evaluation includes neuromuscular assessments and interpretation of investigations such as creatine kinase (CK) levels and genetic testing. Management is explored through a multidisciplinary lens including physiotherapy, pharmacologic support, nutritional care, and family education to optimize mobility and quality of life.
Instructions to Students (First 20 Minutes): Observe demonstrations of muscle strength testing, Gower's maneuver, and gait analysis. Understand the clinical presentation and diagnostic criteria for Duchenne and Becker muscular dystrophies. Review investigation protocols such as CK levels, EMG, and genetic testing. Prepare to conduct mock examinations and plan care.
Students' Activities
Step 01 (Next 40 Minutes): Perform neuromuscular examination on a simulated or peer volunteer. Assess muscle tone, strength, posture, and Gower's sign. Document findings and correlate them with suspected muscular dystrophy type. Prepare a concise case summary.
Step 02 (Next 40 Minutes): Design a multidisciplinary care plan including physiotherapy, orthotic use, respiratory monitoring, nutritional guidance, and school adaptations. Discuss the role of regular assessments, corticosteroid use, and family counseling. Present your plan during peer group discussions.
Assessment Methods (Final 20 Minutes): Teacher will assess clinical examination technique and documentation using DOPS and checklists. Practical viva will evaluate diagnostic reasoning, knowledge of investigations, and depth of care planning. Participation in group discussion will also be considered.

Practical Training 28.8 : Clinical Assessment and Early Intervention Strategies for Floppy Infant Syndrome

Total Duration of the Activities: 2 Hours
This session enables students to assess infants presenting with hypotonia (floppy infant syndrome). They will learn to evaluate tone, primitive reflexes, postural control, and motor milestones. The goal is to differentiate between central and peripheral hypotonia through physical examination and history. Students will also develop individualized early intervention plans involving physiotherapy, neurology consultation, and family counseling to support neurodevelopment.
Instructions to Students (First 20 Minutes): Observe demonstration of infant neuromuscular assessment, focusing on tone, reflexes (e.g., Moro, grasp), head lag, and posture. Learn to identify signs suggesting central (e.g., cerebral palsy) or peripheral causes (e.g., spinal muscular atrophy). Understand how to document systematically and recognize when multidisciplinary care is warranted.
Students' Activities
Step 01 (Next 40 Minutes): Students will examine a real or simulated infant case. They will assess tone in limbs and trunk, elicit reflexes, and evaluate posture and developmental responses. Based on findings, they will determine if the etiology is central or peripheral. All findings must be recorded in a structured clinical proforma.
Step 02 (Next 40 Minutes): Based on the diagnosis, students will prepare a comprehensive early intervention plan. This includes referrals to physiotherapy and occupational therapy, setting developmental goals, and outlining caregiver support. Students will simulate caregiver counseling and propose milestones for periodic reassessment.
Assessment Methods (Final 20 Minutes): Students will be assessed using a DOPS checklist during the examination. The viva will cover central vs. peripheral differentiation, red flag recognition, and construction of early intervention strategies. Teachers will evaluate documentation accuracy and participation in caregiver simulation.

Practical Training 28.9 : Clinical Evaluation and Management of Pediatric Fractures

Total Duration of the Activities: 2 Hours
This session trains students to identify, evaluate, and manage pediatric fractures. Students will perform physical examinations and interpret X-rays to classify fracture types and assess epiphyseal involvement. They will practice casting and splinting techniques using simulation models, focusing on pediatric-specific considerations such as growth plate preservation and healing alignment. Pain management, follow-up care, and developmental assessment will also be emphasized.
Instructions to Students (First 20 Minutes): Observe demonstrations of pediatric fracture evaluation, emphasizing growth plate examination, fracture classification, and imaging interpretation. Review casting techniques with focus on splint types, anatomical considerations, and comfort. Understand key differences between pediatric and adult bone healing patterns.
Students' Activities
Step 01 (Next 40 Minutes): Students will perform physical examinations and assess radiographs of simulated pediatric fracture cases. They will identify fracture location, classify the type (e.g., greenstick, transverse), and determine growth plate involvement. Each group will document findings and select an appropriate immobilization strategy.
Step 02 (Next 40 Minutes): Students will apply short arm casts, long leg splints, or appropriate immobilizers to models simulating pediatric fractures. Follow-up planning will be discussed, including monitoring for growth disruption, reassessment of alignment, and cast care. Students will role-play explaining care instructions to caregivers.
Assessment Methods (Final 20 Minutes): Teachers will assess students using a DOPS checklist during casting/splinting. A practical viva will cover fracture identification,

growth plate evaluation, and management planning. Peer-reviewed case notes and scenario-based questions will also be used to evaluate understanding of pediatric fracture healing and complication prevention.

Practical Training 28.10 : Assessment and Conservative Management of Congenital Foot Deformities

Total Duration of the activities: 2 hours
This session focuses on the clinical assessment and conservative treatment of congenital foot deformities, especially talipes equinovarus (clubfoot). Students will perform physical examinations to assess posture, rigidity, and flexibility, followed by hands-on practice of gentle manipulation, stretching, bracing, and simulated serial casting. Surgical indications, caregiver instructions, and long-term follow-up protocols will also be discussed.
Instructions to Students (First 20 Minutes): Teacher will demonstrate inspection and palpation techniques for congenital foot deformities. Observe foot shape, flexibility, and range of movement. Learn about the Ponseti method, manipulation principles, and conservative management. Prepare to examine simulated cases and document findings.
Students' Activities
Step 01 (Next 40 Minutes): Students will work individually or in pairs to assess the model/simulated patient. They will identify deformities, evaluate rigidity, perform stepwise manipulations, and record their observations. Basics of the Ponseti method will be practiced under supervision.
Step 02 (Next 40 Minutes): Students will simulate the application of braces or casts and draft an individualized care and follow-up plan. This includes outlining timelines for bracing, red flags for recurrence, parental counseling, and criteria for orthopedic referral. Findings will be shared in peer discussions.
Assessment Methods (Final 20 Minutes): Teacher will assess students using a DOPS checklist focusing on manipulation, assessment, and bracing skills. Practical viva will test their clinical reasoning, accuracy in deformity classification, and ability to plan conservative management. Documentation and clarity of patient education will also be evaluated.

Experiential learning Activity

Experiential-Learning 28.1 : Pediatric Headache: Role-Play and Lifestyle-Based Management

Total Duration of the Activities 4 Hours
This session focuses on the diagnosis and holistic management of pediatric headaches, including migraines, tension-type headaches, and secondary causes. Through role-play and discussion, students simulate real clinical encounters with pediatric patients and caregivers, emphasizing counseling, lifestyle modifications, and preventive strategies. The goal is to build skills in empathetic communication and individualized, evidence-based care.
Instructions to Students (First 30 Minutes) Teacher will explain case scenarios involving common pediatric headache types. Review clinical features and triggers, and understand how to communicate effectively with caregivers. Prepare to participate in role-play exercises and discussions on treatment options, lifestyle adjustments, and prevention strategies.
Students' Activities (Next 180 Minutes)
Step 01 (First 60 Minutes): Participate in structured role-plays simulating pediatric headache consultations. Practice explaining diagnosis and offering non-pharmacological and pharmacological management, including sleep, hydration, diet, and screen time advice.

Step 02 (Second 60 Minutes): Engage in group discussions on different case types. Compare and contrast pharmacological interventions, preventive options, and holistic strategies. Emphasize early identification of red flags and chronicity markers.
Step 03 (Third 60 Minutes): Prepare a group summary report outlining lifestyle-based care, communication strategies used during role-play, and reflective insights on patient-family interaction in pediatric neurology.
Assessment (Final 30 Minutes) Teacher will assess each student's communication approach, accuracy of lifestyle and pharmacological counseling, and reflective participation. Peer feedback and observation during role-play will inform affective and cognitive skill assessment. Practical viva will confirm understanding of headache classification and management strategies.

Experiential-Learning 28.2 : Multidisciplinary Neuro-Rehabilitation Planning in Pediatric Neurological Conditions

Total Duration of the Activities 4 Hours
This experiential learning activity enables students to engage in multidisciplinary neuro-rehabilitation planning for pediatric conditions such as spasticity, brain injury, spinal cord injury, and brachial plexus injury. Students will explore the coordinated use of physiotherapy, occupational therapy, and psychosocial support, while integrating family education and long-term care strategies. Through interactive case analysis, demonstrations, and team presentations, students will gain practical skills in designing holistic rehabilitation protocols aimed at functional recovery, motor skill improvement, and emotional resilience in affected children.
Instructions to Students (First 30 Minutes) The Teacher will assign pediatric neurological case scenarios and instruct students to review injury types, rehabilitation needs, and expected challenges. Students will collaborate in teams to explore the roles of different disciplines, including physiotherapists, occupational therapists, and psychosocial counselors. Emphasis will be placed on functional recovery goals, family involvement, and designing plans suited to both medical and home settings.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will analyze the assigned case scenarios, identifying specific rehabilitation needs across motor, cognitive, emotional, and sensory domains. Each team will document functional impairments, required support, and challenges in pediatric neuro-rehabilitation.
Step 02 (Second 60 Minutes) Each team will design a comprehensive rehabilitation plan, integrating physiotherapy techniques, occupational therapy interventions, and family counseling or education strategies. The focus will be on realistic recovery goals and tailoring the plan to the child's age, condition, and family capacity.
Step 03 (Third 60 Minutes) Teams will present their rehabilitation plans to peers, highlighting how each therapy contributes to functional outcomes, improved quality of life, and emotional well-being. They will document the role of family support and monitoring tools for long-term success.
Assessment (Final 30 Minutes) The Teacher will evaluate each group through a checklist and practical viva, assessing the clarity, feasibility, and completeness of the rehabilitation plan. Emphasis will be placed on multidisciplinary integration, individualized planning, and patient-family-centered strategies for effective pediatric neuro-rehabilitation.

Experiential-Learning 28.3 : Recognition and Management of Pediatric Movement Disorders: A Practical Simulation-Based Approach

Total Duration of the Activities 3 Hours
This experiential learning session enables students to recognize and manage pediatric movement disorders such as tremors, dystonia, and motor incoordination using

simulation-based cases. Students will observe motor patterns through mannequins or video demonstrations and practice motor function assessments under supervision. They will identify disorder types and correlate them with etiologies such as neurodegenerative conditions, cerebral palsy, or medication effects. Treatment planning includes pharmacologic options (e.g., antiepileptics, dopaminergic agents) and supportive therapies such as physiotherapy and occupational therapy. The session emphasizes early diagnosis, functional recovery, and improving quality of life through holistic care.
Instructions to Students (First 20 Minutes) The Teacher will provide an overview of common pediatric movement disorders, guiding students through video demonstrations and motor assessment techniques. Students will review simulation case materials, identifying diagnostic signs such as abnormal posture, involuntary movements, tremors, and motor delay patterns, and will be oriented toward current pharmacological and supportive care protocols.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will analyze assigned simulated clinical cases, documenting symptom patterns, motor dysfunction characteristics, and making preliminary diagnoses based on observed signs. They will identify possible underlying etiologies and compile notes for discussion.
Step 02 (Second 70 Minutes) Students will develop individualized management plans that combine pharmacological treatments (e.g., antiepileptics, dopaminergic agents) with supportive therapies (e.g., physiotherapy, occupational therapy). Each group will present their plan, justifying their clinical decisions and expected functional outcomes.
Assessment (Final 20 Minutes) The Teacher will conduct a practical viva and evaluate each team's presentation using a checklist, focusing on the accuracy of diagnosis, the comprehensiveness of treatment strategies, and the integration of interdisciplinary care in pediatric movement disorders.

Experiential-Learning 28.4 : Clinical Observation of Congenital Muscle Disorders: Multidisciplinary and Empathetic Care in Pediatrics

Total Duration of the Activities 4 Hours
This experiential learning activity provides students with clinical exposure to congenital muscle disorders, including congenital myopathies and arthrogryposis, in pediatric care settings. Students will observe clinical presentations, diagnostic steps, and therapy planning with a focus on interdisciplinary collaboration, emotional support, and family counseling. This session emphasizes empathetic care, the significance of early diagnosis, and the long-term support needs of affected children. Through observation, reflection, and team-based discussion, students will better understand the clinical, emotional, and social impact of these complex conditions.
Instructions to Students (First 30 Minutes) The Teacher will instruct students to observe pediatric consultations and therapy planning sessions involving children with congenital muscle disorders. Students should focus on the clinical presentation, diagnostic challenges, and interaction between healthcare providers and families. They are encouraged to ask appropriate questions to understand the management strategies and emotional responses of caregivers.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes)Students will observe at least two pediatric cases, recording key clinical features, diagnostic steps, and the initial therapy plans discussed. Attention should be paid to neurological assessments, functional limitations, and interdisciplinary contributions.
Step 02 (Second 60 Minutes) Students will reflect on the patient-family experience, documenting how the healthcare team provides emotional support, education, and reassurance. Emphasis will be on understanding the psychosocial burden and the role of compassionate communication.
Step 03 (Third 60 Minutes) Students will prepare a summary presentation discussing the observed cases. Topics will include early diagnosis, rehabilitation options, and the importance of collaborative and empathetic care in managing congenital muscle disorders. Peer feedback and group dialogue will promote shared learning.
Assessment (Final 30 Minutes) The Teacher will assess students through a presentation evaluation and a reflective checklist, focusing on the student's ability to articulate the

importance of early diagnosis, recognize the role of multidisciplinary teams, and reflect on compassionate care delivery. Reflection quality, engagement, and empathy will guide the evaluation.

Experiential-Learning 28.5 : Workshop on Pediatric Neuromuscular Transmission Disorders: Diagnosis and Multidisciplinary Care

Total Duration of the Activities 4 Hours
This interactive workshop introduces students to pediatric neuromuscular transmission disorders, including myasthenia gravis, spinal muscular atrophy (SMA), and motor neuron disease. Through clinical case assessments, neurological testing, and diagnostic interpretation, students will learn to evaluate motor deficits and correlate findings with Electromyography (EMG) and pulmonary function tests. Pharmacological options and supportive care strategies such as physiotherapy, nutrition, and respiratory support will be discussed in team settings. The session emphasizes the importance of early diagnosis, multidisciplinary collaboration, and family-centered care in improving quality of life for affected children.
Instructions to Students (First 30 Minutes) The Teacher will introduce the session by reviewing case materials, neuromuscular pathophysiology, and the use of diagnostic tools like Electromyography (EMG) and pulmonary function testing. Students will form small groups, discuss presenting symptoms, and prepare to apply clinical reasoning in formulating diagnosis and care strategies during the workshop.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will analyze assigned case scenarios, identifying key pathophysiological markers, neurological symptoms, and interpreting Electromyography (EMG), Pulmonary Function Tests (PFT), and other diagnostic results. They will record clinical impressions for use in later planning.
Step 02 (Second 60 Minutes) Students will work in groups to develop comprehensive treatment plans that integrate pharmacological agents (e.g., anticholinesterases, corticosteroids) with supportive care strategies, including nutrition, physiotherapy, and respiratory support tailored to each condition.
Step 03 (Third 60 Minutes) Each group will present their findings, explaining the rationale for early diagnosis, outlining multimodal treatment strategies, and reflecting on how family education and psychosocial support enhance care outcomes. Peer and teacher feedback will reinforce collaborative learning.
Assessment (Final 30 Minutes) The Teacher will conduct a practical viva and evaluate each group's presentation using a structured checklist. Assessment will focus on the accuracy of clinical interpretation, appropriateness of treatment planning, and understanding of interdisciplinary care in pediatric neuromuscular disorders.

Experiential-Learning 28.6 : Case-Based Learning on Non-Surgical and Surgical Management of Scoliosis and Kyphosis

Total Duration of the Activities 4 Hours
Students will participate in an interactive case-based learning session to evaluate scoliosis and kyphosis in pediatric patients. Students will assess clinical histories and spinal X-rays, measure Cobb angles, and determine the severity of spinal curvature. Based on their analysis, students will develop individualized management plans including physiotherapy, bracing, surgical indications, and follow-up care. Emphasis will be on early diagnosis, collaborative decision-making, and comprehensive patient care.
Instructions to Students (First 30 Minutes) Teacher will explain the clinical presentations of scoliosis and kyphosis using case scenarios and radiographic images. Students will receive guidance on measuring Cobb angles, classifying deformity severity, and selecting appropriate treatment strategies. Students are expected to listen attentively, ask relevant questions, and prepare to apply learned principles during group-based analysis and presentation.

Students' Activities (Next 180 Minutes – 60 min + 60 min + 60 min)
Step -01 (60 Minutes): Students will review the assigned case scenario, examine spinal X-rays, and identify the type and severity of deformity using Cobb angle measurements. Students will classify the condition as mild, moderate, or severe and document relevant clinical signs and curvature characteristics.
Step -02 (60 Minutes): Students will formulate an individualized management plan based on the severity of the deformity. Plans will include conservative treatment options such as physiotherapy, orthotic bracing, or referral for surgical consideration. Students will document the rationale for each intervention and align it with the age and condition of the patient.
Step -03 (60 Minutes): Students will present the case summary and treatment plan to the class. Presentations will include diagnostic reasoning, treatment goals, and the importance of multidisciplinary care. Students will engage in peer discussions and respond to feedback to consolidate understanding.
Assessment (Final 30 Minutes) Teacher will assess students using a structured checklist covering diagnostic accuracy, Cobb angle measurement skills, treatment planning, and presentation clarity. Students will undergo a practical viva and participate in peer-reviewed feedback to evaluate their ability to apply knowledge in real-world clinical scenarios.

Experiential-Learning 28.7 : Communication and Care Planning in Pediatric Arthritis Cases

Total Duration of the Activities 3 Hours
Students will participate in structured role-play scenarios simulating real-time interactions with pediatric patients diagnosed with juvenile idiopathic arthritis and septic arthritis. These sessions will emphasize communication skills for building trust, eliciting family concerns, educating on treatment options, and promoting lifestyle modifications. Through guided role-play and reflective discussion, students will learn to provide empathetic, evidence-based care plans aimed at improving joint health and quality of life.
Instructions to Students (First 20 Minutes) Teacher will conduct a preparatory discussion introducing communication strategies relevant to pediatric rheumatology. Students will be assigned roles (healthcare provider, caregiver, or patient) and oriented to scenario goals such as identifying emotional needs, supporting family concerns, and planning collaborative care. Emphasis will be placed on active listening, patient-centered dialogue, and treatment adherence motivation.
Students' Activities (Next 140 Minutes – Step 01 + Step 02)
Step – 01 (70 Minutes): Students will actively participate in role-play scenarios, assuming roles of healthcare provider, caregiver, and pediatric patient. Students will practice skills in rapport building, eliciting joint pain-related concerns, educating about juvenile idiopathic arthritis and septic arthritis, and offering practical early joint care advice.
Step – 02 (70 Minutes): Students will develop individualized care plans that integrate medical, physiotherapeutic, and lifestyle strategies. Students will reflect on their communication style, discuss barriers to treatment adherence, and share insights into promoting long-term joint health and patient confidence through empathetic interaction.
Assessment (Final 20 Minutes) Teacher will assess each student through a structured observation checklist during role-play and a brief practical viva. Peer feedback will contribute to evaluating communication clarity, empathy, and ability to formulate practical care plans that encourage adherence and improve pediatric arthritis outcomes.

Modular Assessment

Assessment method	**Hour**

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 6C. Section A – 25 Marks: Objective Structured Clinical Examination with Simulated Patients. This 25-mark OSCE assessment evaluates students' clinical decision-making and communication in pediatric neurological cases such as seizures, headaches, congenital anomalies, and CNS infections. Students will rotate through structured stations with simulated patients to assess diagnostic ability, therapeutic reasoning, patient explanation, and integration of neurological examination techniques and emergency care. Instructions to Students: Students will encounter simulated pediatric neurological cases involving symptoms such as seizures, altered consciousness, or developmental delay. Perform structured clinical history taking, propose likely diagnosis or differentials, suggest investigations, and outline treatment. Communicate your plan to the patient or caregiver. Each station is timed. No reference materials allowed. Instructions to Teachers: Prepare OSCE stations with trained simulated patients reflecting neurological presentations. Evaluate student performance using structured checklists covering observation skills, diagnostic reasoning, communication, and emergency management planning. Ensure uniform case difficulty, standardized timing, and objective scoring through validated rubrics and focused interactions. Mark Distribution : The assessment totals 25 marks and includes four OSCE stations. Station 1 assesses clinical history and neurological symptom analysis (7 marks), Station 2 evaluates diagnosis formulation and interpretation of neurodiagnostic tools (6 marks), Station 3 checks therapeutic or emergency planning (6 marks), and Station 4 tests caregiver communication and clinical justification (6 marks). & Section B – 25 Marks: Objective Structured Practical Examination + Patient Management Problems. This 25-mark OSPE-based assessment evaluates students’ ability to manage neuromuscular and musculoskeletal pediatric conditions through structured clinical problem-solving. Topics include muscular dystrophies, congenital myopathies, juvenile arthritis, fractures, and skeletal deformities. Stations involve case evaluation, diagnosis, treatment planning, and simulated management scenarios. Instructions to Students: Students will rotate through structured OSPE stations representing pediatric patients with neurological and orthopedic conditions. Each station includes tasks like identifying clinical signs, interpreting lab or radiological findings, proposing management plans, and communicating care approaches. Be concise and time-bound. Reference material is not permitted during the session. Instructions to Teachers: Design practical case-based OSPE stations focused on congenital, inflammatory, and degenerative pediatric disorders. Use simulated patient data, models, or images to assess interpretation, reasoning, and treatment choices. Apply standardized scoring rubrics covering diagnostic accuracy, procedural steps, communication, and follow-up planning. Mark Distribution: The 25 marks are distributed across four components. Station 1: Case Analysis and Problem Identification (7 marks); Station 2: Diagnostic Reasoning and Tool Interpretation (6 marks); Station 3: Therapeutic Management Planning (6 marks); Station 4: Patient/Caregiver Communication and Follow-up Strategy (6 marks). (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	4

Semester No : 5

Module 29 : Rheumatology and Infectious diseases

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

Describe pediatric autoimmune disorders including lupus and various vasculitides.
Describe diagnostic and therapeutic approaches for pediatric bacterial infections.
Identify viral childhood illnesses and their vaccination and management strategies.
Discuss diagnosis and treatment of vector-borne and parasitic infections in children.
Analyze pediatric fungal infections and formulate antifungal treatment protocols.
Integrate knowledge of infectious diseases and immune disorders for holistic care.

M 29 Unit 1 Rheumatology

29.1.1 Systemic Lupus Erythematosus – Autoantibodies, malar rash, arthritis, nephritis, diagnostic criteria, rheumatoid arthritis features, immunosuppressive therapy, multidisciplinary care.
29.1.2 Mixed Connective Tissue Disease – Overlapping syndromes, Raynaud phenomenon, myositis, arthritis, anti-U1 RNP antibodies, diagnostic markers, treatment protocols.
29.1.3 Large Vessel Vasculitis – Takayasu arteritis, limb claudication, absent pulses, elevated ESR, vascular imaging, corticosteroids, immunosuppressive agents.
29.1.4 Medium Vessel Vasculitis – Kawasaki disease, polyarteritis nodosa, mucocutaneous signs, fever, coronary artery aneurysm, IVIG, systemic inflammation control.
29.1.5 Small Vessel Vasculitis – Henoch-Schönlein purpura, ANCA-associated vasculitis, palpable purpura, hematuria, gastrointestinal involvement, steroid therapy, renal monitoring.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe the etiology, clinical presentations, diagnostic criteria, and management of major rheumatologic conditions, including systemic lupus erythematosus (SLE), rheumatoid arthritis, mixed connective tissue disease, and vasculitides affecting large, medium, and small vessels.	1	Lecture	CK	Knows-how	L_VC,L&GD,L&PPT ,L
CO3,CO6,CO7	Interpret lab findings and evaluate autoimmune disease presentations.	2	Practical Training 29.1	CAN	Shows-how	PAL,RLE,D,CBL,LRI
CO3,CO6,CO7	Interpret imaging and labs in large vessel vasculitis diagnosis.	2	Practical Training 29.2	CAN	Shows-how	DIS,LRI,SIM,ML,CBL
CO2,CO5,CO7	Participate in case analysis sessions focused on Systemic Lupus Erythematosus (SLE) and rheumatoid arthritis.	3	Experiential-Learning 29.1	AFT-VAL	Does	PL,DIS,TBL,BL
CO3,CO4,CO8	Develop diagnostic and therapeutic strategies for Mixed Connective Tissue Disease through collaborative, case-based learning	4	Experiential-Learning 29.2	AFT-SET	Does	PSM,TBL,CBL
CO2,CO5,CO7	Recognize the importance of early diagnosis and intervention in conditions.	1	Lecture	CK	Know	L&PPT,BL

M 29 Unit 2 Fever and Bacterial Infectious Diseases

29.2.1 Fever – Fever with focus, fever without focus, fever of unknown origin, temperature patterns, diagnostic evaluation, antimicrobial initiation, supportive care.
29.2.2 Gram Positive Infections – Streptococcal infections, staphylococcal infections, diphtheria, nocardiosis, Listeria monocytogenes, actinomycosis, symptomatology, antibiotic protocols.
29.2.3 Gram Negative Infections – Haemophilus influenzae, pertussis, enteric fever, Shigella, Escherichia coli, cholera, Helicobacter pylori, clinical signs, rehydration, antimicrobial therapy.
29.2.4 Spirochetal Infections – Leptospirosis, borreliosis, zoonotic transmission, febrile illness, rash, renal involvement, diagnostic tests, antimicrobial regimens.

29.2.5 Rickettsia – Scrub typhus, Q fever, eschar formation, lymphadenopathy, serologic testing, doxycycline therapy, complication prevention.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe the principles of fever management in pediatric patients, distinguishing between fever with a clear source and fever of unknown origin.	1	Lecture	CC	Knows-how	L&GD,L &PPT ,L
CO3,CO6,CO7	Apply clinical reasoning to differentiate and manage pediatric fever.	2	Practical Training 29.3	CAP	Shows-how	D,CBL,P L
CO3,CO5,CO6	Differentiate bacterial infections and propose organism-specific treatments.	2	Practical Training 29.4	CAN	Shows-how	CBL,SDL ,L&GD
CO2,CO5,CO7	Apply clinical knowledge to identify and manage pediatric leptospirosis.	2	Practical Training 29.5	PSY-GUD	Shows-how	SIM,CBL ,D-BED
CO2,CO5,CO7	Apply clinical reasoning to differentiate types of pediatric fever and formulate evidence-based management plans	3	Experiential-Learning 29. 3	AFT-RES	Does	CBL,PAL ,PSM
CO2,CO5,CO7	Classify the clinical features and management approaches for various bacterial infections	1	Lecture	CC	Knows-how	L&PPT ,PER

M 29 Unit 3 Viral Infections

29.3.1 Measles, Mumps, and Rubella – Viral etiology, fever, rash, parotitis, lymphadenopathy, Koplik spots, vaccination schedule, complication prevention, supportive therapy.
29.3.2 Roseola, Epstein-Barr, and Cytomegalovirus – Sudden high fever, rash onset, mononucleosis, hepatosplenomegaly, atypical lymphocytes, serological testing, symptomatic management.
29.3.3 Influenza, Parainfluenza, and Respiratory Syncytial Virus – Fever, cough, bronchiolitis, stridor, seasonal outbreaks, antiviral drugs, oxygen support, infection control.
29.3.4 Dengue, Yellow Fever, and Ebola – Hemorrhagic features, shock, myalgia, retro-orbital pain, thrombocytopenia, vector control, fluid management, outbreak

preparedness.
29.3.5 Varicella-Zoster, Herpes Simplex, and Arboviruses – Vesicular eruptions, encephalitis, oral ulcers, Japanese encephalitis, chikungunya, neurotropic symptoms, antiviral treatment, immunoprophylaxis.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Analyze the causes, clinical features, and management strategies for various viral infections in children.	1	Lecture	CAN	Know	L,L_VC, L&PPT ,L&GD
CO2,CO5,CO7	Demonstrate pediatric Measles, Mumps, and Rubella (MMR) examination and supportive care planning.	2	Practical Training 29.6	PSY-MEC	Shows-how	SIM,CBL ,PAL
CO3,CO4,CO6	Identify and manage pediatric vector-borne disease presentations.	2	Practical Training 29.7	PSY-GUD	Shows-how	CBL,D-BED,CD,SIM
CO2,CO5,CO7	Apply diagnostic reasoning and formulate treatment and education plans for pediatric viral respiratory infections	3	Experiential-Learning 29.4	AFT-SET	Does	RLE,BL
CO4,CO7,CO8	Demonstrate effective community engagement skills for education on vector-borne and viral infection prevention	4	Experiential-Learning 29.5	AFT-SET	Does	RP,GBL, TBL
CO2,CO5,CO7	Analyze the role of vaccination, supportive care, and preventive strategies.	1	Lecture	CAN	Know	DIS,L&PPT
CO2,CO5,CO7	Describe the specific risk factors in pediatric populations, such as schools and daycare.	1	Lecture	CAN	Knows-how	DIS,L&PPT

M 29 Unit 4 Protozoal Diseases and Fungal Infections

29.4.1 Malaria, Leishmaniasis, and Giardiasis – Plasmodium species, kala-azar, protozoal diarrhea, fever patterns, hepatosplenomegaly, stool microscopy, antiprotozoal therapy, vector control.
29.4.2 Amebiasis, Filariasis, and Toxoplasmosis – Intestinal and extraintestinal amebiasis, lymphatic filariasis, congenital toxoplasmosis, serologic diagnosis, antiparasitic treatment, chronic sequelae.
29.4.3 Helminthiasis – Ascariasis, trichuriasis, hookworm infection, taeniasis, cysticercosis, trichinosis, echinococcosis, schistosomiasis, mass deworming, anthelminthic drugs.
29.4.4 Fungal Infections – Candidiasis, aspergillosis, Malassezia dermatitis, cryptococcosis, superficial and systemic presentations, antifungal medications, laboratory diagnosis.
29.4.5 Blastomycosis, Histoplasmosis, and Mucormycosis – Endemic mycoses, respiratory and disseminated forms, high-risk populations, imaging findings, antifungal regimens, surgical debridement.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Apply clinical knowledge to understand the etiology, clinical presentation, and management strategies for protozoal diseases.	1	Lecture	CAP	Know	L,L&GD,L_VC,L&PPT
CO3,CO4,CO6	Perform and interpret clinical assessments confidently for protozoal infections.	2	Practical Training 29.8	PSY-MEC	Shows-how	D-M,CBL,LRI
CO3,CO4,CO6	Apply clinical reasoning to diagnose and manage helminthic infections in children.	2	Practical Training 29.9	PSY-ADT	Shows-how	PAL,SIM,CBL,D-BED
CO3,CO4,CO6	Demonstrate clinical skills in identifying, diagnosing, and managing common fungal infections	2	Practical Training 29.10	PSY-MEC	Shows-how	D-BED,LRI
CO4,CO7,CO8	Promote hygiene and malaria prevention through interactive community engagement	3	Experiential-Learning 29.6	AFT-VAL	Does	DIS,FV,PAL

CO2,CO5,CO7	Apply clinical and public health strategies for managing and preventing pediatric helminthic infections	3	Experiential-Learning 29.7	AFT-VAL	Does	CBL,TBL,PL
CO2,CO5,CO7	Apply diagnostic reasoning and antifungal management protocols for pediatric fungal infections	3	Experiential-Learning 29.8	AFT-VAL	Does	TBL,PAL
CO2,CO5,CO7	Apply the appropriate diagnostic tools and treatments	1	Lecture	CAP	Knows-how	PER,L&GD
CO2,CO5,CO7	Apply preventive measures and hygiene practices to reduce infection risks.	1	Lecture	CAP	Knows-how	L&PPT,DIS

Practical Training Activity

Practical Training 29.1 : Clinical Evaluation and Management Planning for Pediatric Autoimmune Disorders Systemic Lupus Erythematosus (SLE) and Juvenile Rheumatoid Arthritis (JRA)

Total Duration of the Activities: 2 Hours
This session trains students in the evaluation of pediatric autoimmune disorders such as Systemic Lupus Erythematosus (SLE) and Juvenile Rheumatoid Arthritis (JRA). Through clinical history-taking, physical examination, and lab report interpretation, students will identify joint, skin, and systemic symptoms. They will formulate individualized treatment plans including immunosuppressants, lifestyle modifications, and monitoring strategies, with a focus on long-term care and quality of life.
Instructions to Students (First 20 Minutes): Observe clinical demonstrations showing pediatric signs of autoimmune diseases like butterfly rash, joint swelling, and fatigue. Review diagnostic criteria including Antinuclear Antibody (ANA), anti-double stranded DNA antibodies, erythrocyte sedimentation rate, and C-reactive protein. Prepare to evaluate simulated or real cases, and propose appropriate clinical and laboratory correlations for diagnosis and follow-up.
Students activities
Step 01 – First 40 Minutes: Students will analyze case sheets and review laboratory data (Antinuclear Antibody (ANA),anti-double stranded DNA antibodies (dsDNA), erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), Complete blood count (CBC), urine protein). They will identify clinical patterns in Systemic Lupus Erythematosus (SLE) and Juvenile Rheumatoid Arthritis (JRA)—such as symmetrical joint involvement or skin lesions—and correlate these with diagnostic markers. All observations will be documented using structured formats.
Step 02 – Next 40 Minutes: Students will prepare a management plan including initiation of immunosuppressive therapy (e.g., steroids, DMARDs), dietary recommendations, physical activity planning, and psychosocial support strategies. They will discuss prognosis, the role of early diagnosis, and long-term follow-up requirements in peer groups.

Assessment Methods (Final 20 Minutes): Teacher will use checklists to assess interpretation of clinical and laboratory data. A practical viva will test students' ability to justify diagnosis, propose rational therapy, and identify monitoring tools. Case discussion participation will be used to evaluate teamwork and applied reasoning.

Practical Training 29.2 : Clinical Evaluation and Imaging Interpretation in Pediatric Large Vessel Vasculitis (Takayasu Arteritis)

Total Duration of the Activities: 2 Hours
This session focuses on the clinical recognition, diagnostic workup, and management planning for pediatric large vessel vasculitis, especially Takayasu arteritis. Students will evaluate real or simulated case data, interpret vascular imaging (CT angiogram, MRI), and analyze inflammatory markers (Erythrocyte Sedimentation Rate, C-reactive protein). Emphasis is placed on recognizing clinical signs such as pulse discrepancy, limb claudication, and hypertension. Students will propose stepwise treatment plans including corticosteroids, immunosuppressants, and monitoring strategies.
Instructions to Students (First 20 Minutes): Review signs and symptoms of Takayasu arteritis such as weak peripheral pulses, arm-leg blood pressure differences, and systemic inflammation. Observe imaging demonstrations and discuss the significance of CT angiogram/Magnetic Resonance Imaging (MRI) findings. Understand the treatment goals and complications like stenosis or aneurysm formation
Students activities
Step 01 – First 40 Minutes: Students will analyze detailed clinical case records, including physical findings (e.g., bruits, claudication, absent pulses) and lab results (Erythrocyte Sedimentation Rate, C-reactive protein,Complete Blood count). They will interpret vascular imaging to localize and classify vessel involvement. Observations will be recorded using a structured clinical worksheet.
Step 02 – Next 40 Minutes: Students will collaboratively prepare a management plan covering corticosteroid therapy, immunosuppressive agents (e.g., methotrexate), hypertension control, and imaging-based follow-up. They will also discuss the rationale for surgical or interventional procedures in advanced cases. Each group will summarize their diagnostic and therapeutic approach.
Assessment Methods (Final 20 Minutes): Students will be assessed through a structured viva voce focusing on the classification of vasculitis, interpretation of diagnostic markers, and analysis of vascular imaging findings. Their case documentation will be evaluated using a checklist to ensure accuracy and completeness. Additionally, participation in group discussions will be reviewed to assess clinical reasoning, depth of understanding, and the ability to formulate appropriate and timely diagnostic and treatment strategies.

Practical Training 29.3 : Clinical Assessment and Management of Pediatric Fever

Total Duration of the Activity: 2 Hours
This session equips students to evaluate pediatric fever by distinguishing between fever with a focus, without a focus, and fever of unknown origin (FUO). Students will explore symptom timelines, systemic examinations, and key investigations (e.g., Complete blood count, urine routine, C reactive protein). Focus is placed on identifying red flags, selecting appropriate diagnostic pathways, and deciding when to refer. The session includes interactive discussions, documentation of care plans, and exploration of antimicrobial stewardship.
Instructions to Students (First 30 Minutes): Teacher will provide a structured briefing on the approach to pediatric fever. Students will learn how to elicit relevant history,

conduct a systemic exam, and classify fever type. The session will highlight diagnostic steps and management principles, including when to initiate antibiotics or escalate care.
Students' Activities (Next 60 mins - 30 mins + 30 mins)
Step 01 – (30 Minutes): Students will rotate through 2–3 case scenarios involving children with various fever presentations. They will practice history taking, identify red flags (e.g., rash, lethargy, hypotension), and propose differential diagnoses. Based on findings, they will formulate a care plan, outlining relevant investigations and management strategies, including indications for hospital referral.
Step 02 – (30 Minutes): Students will engage in peer discussions to present and critique each case. Emphasis will be on refining decision-making for fever of unknown origin (FUO) and fever without focus, balancing empirical treatment with observation, and minimizing unnecessary investigations.
Assessment (Final 30 Minutes): Teacher will assess each student's clinical reasoning, appropriateness of investigations, and accuracy in fever classification using a structured checklist. A practical viva will further evaluate the student's ability to recognize fever red flags, justify diagnostic decisions, and plan stepwise management.

Practical Training 29.4 : Classification and Management of Pediatric Gram-Positive and Gram-Negative Infections

Total Duration of the Activity: 2 Hours
This session introduces students to the classification, clinical features, and management of common pediatric infections caused by gram-positive and gram-negative organisms. Through lecture and discussion, students compare symptoms, diagnostic approaches, and antimicrobial strategies. Focus is placed on recognizing clinical patterns, interpreting culture and sensitivity reports, and integrating antimicrobial stewardship principles in treatment planning.
Instructions to Students (First 20 Minutes): Attend a lecture on key gram-positive and gram-negative pathogens affecting children. Learn to recognize common signs, complications, and diagnostic differences. Review basic antibiotic classes and resistance patterns. Prepare to engage in small group discussion with clinical case applications.
Students' Activities
Step 01 –(40 Minutes): Analyze two case scenarios—one with a gram-positive organism (e.g., Staphylococcus aureus skin infection) and one with a gram-negative organism (e.g., Salmonella in enteric fever). Identify presenting symptoms, likely organisms, and appropriate investigations.
Step 02 – (40 Minutes): In groups, prepare a comparative chart summarizing the etiology, clinical features, diagnostic workup, and treatment options for each case. Present your findings and proposed treatment plan in peer discussions. Focus on antibiotic choice, age-based guidelines, and resistance considerations.
Assessment (Final 20 Minutes): Students will be peer-assessed based on clarity and accuracy in case discussion and comparative chart presentation. Teachers will provide feedback on the quality of reasoning, treatment logic, and integration of stewardship principles. A case-based quiz may be used to reinforce learning.

Practical Training 29.5 : Clinical Assessment and Management of Pediatric Leptospirosis

Total Duration of the Activity: 2 Hours
This session introduces students to the clinical evaluation and management of pediatric leptospirosis. Learners will examine simulated or real pediatric cases with symptoms like fever, jaundice, or hemorrhage, and assess history of exposure to environmental risk factors. Through hands-on physical examination, students will identify key clinical

signs and formulate a treatment plan involving appropriate investigations and antibiotic therapy. Preventive strategies and monitoring criteria will also be discussed.
Instructions to Students (First 20 Minutes): Teacher will provide an overview of pediatric leptospirosis, including transmission, clinical features, and environmental risk factors. Teacher will demonstrate physical examination techniques focusing on fever, hepatosplenomegaly, conjunctival suffusion, and muscle tenderness. Teacher will explain the diagnostic process and expected learning outcomes.
Students' Activities
Step 01 – (First 40 Minutes): Students will perform structured clinical history-taking and physical examination on a simulated or real pediatric patient. Students will record risk factors such as recent exposure to floodwaters or rodents and identify classical signs of leptospirosis. Findings will be documented using a structured proforma.
Step 02 – (Next 40 Minutes): Students will analyze case data and suggest appropriate investigations such as Enzyme-Linked Immunosorbent Assay (ELISA) for Leptospira, liver and kidney function tests. Students will prepare and present a management plan including antibiotics, hydration support, and monitoring strategies. Peer discussions will focus on differential diagnoses and public health interventions.
Assessment (Final 20 Minutes): Teacher will assess students using a structured checklist during clinical tasks and presentations. Teacher will conduct a practical viva to evaluate diagnostic reasoning, accuracy in interpreting lab data, and formulation of a comprehensive treatment plan.

Practical Training 29.6 : Clinical Assessment and Management of Measles, Mumps, and Rubella (MMR) in Pediatric Practice

Total Duration of the Activity: 2 Hours
This practical session engages students in clinical skill development for identifying and managing pediatric cases of Measles, Mumps, and Rubella. Through simulated and peer-assisted learning, students will observe key signs such as Koplik spots, rash distribution, and parotid gland swelling. They will practice infection control, case documentation, and caregiver communication while preparing structured management plans that align with standard clinical protocols.
Instructions to Students (First 20 Minutes): Teacher will demonstrate physical examination techniques and hallmark signs of Measles, Mumps, and Rubella. Teacher will guide students on applying infection control measures and Personal Protective Equipment (PPE) use. Teacher will orient students on documentation techniques and brief them on expected symptoms and management goals for each condition.
Student Activities
Step 01 – (First 40 Minutes): Students will perform clinical assessments on simulated Measles, Mumps, and Rubella (MMR) cases. Students will identify symptoms such as high-grade fever, skin rash patterns, oral lesions (Koplik spots), and glandular swelling. They will document findings using structured case formats.
Step 02 –(Next 40 Minutes): Students will outline appropriate management steps including isolation precautions, hydration, antipyretics, and patient education. Students will simulate caregiver counseling, explaining disease course and follow-up needs. They will prepare and present clinical notes for peer review.
Assessment Methods (Final 20 Minutes): Teacher will conduct a case-based assessment and practical viva to evaluate diagnostic accuracy, treatment planning, and communication clarity. Teacher will assess student performance during simulation using a structured checklist for procedural competency and caregiver interaction.

Practical Training 29.7 : Clinical Identification and Management of Pediatric Vector-Borne Diseases (Dengue, Yellow Fever, Ebola)

Total Duration of the Activity: 2 Hours

This practical session trains students to clinically evaluate and manage pediatric vector-borne diseases including Dengue, Yellow Fever, and Ebola. Using simulations and peer-led activities, students will practice identifying critical symptoms, interpreting relevant investigations, and initiating emergency stabilization. Emphasis is placed on triage, infection control, and differentiating clinical features to formulate disease-specific interventions and prevention strategies.
Instructions to Students (First 20 Minutes): Teacher will demonstrate pediatric triage methods for suspected vector-borne infections. Teacher will illustrate the use of Personal Protective Equipment (PPE), patient isolation techniques, and identification of critical signs such as hemorrhagic rash, jaundice, or hypotension. Teacher will explain laboratory test interpretation (e.g., platelet count, liver enzymes) and guide students on systematic case documentation.
Student Activities
Step 01 – (First 40 Minutes): Students will conduct clinical evaluations on simulated pediatric patients. Students will assess vitals, examine for bleeding, dehydration, or icterus, and simulate emergency care steps such as isolation and fluid support. Findings will be recorded for group discussion.
Step 02 – (Next 40 Minutes): Students will present case findings to peers and propose a clinical diagnosis. Students will outline management plans tailored to the suspected condition and severity. They will compare the preventive strategies and public health implications for diseases like Dengue versus Ebola.
Assessment Methods (Final 20 Minutes): Teacher will assess each student's ability to perform accurate evaluations through DOPS and case-based discussions. A practical viva will test disease differentiation, diagnostic reasoning, and awareness of emergency protocols and infection control practices.

Practical Training 29.8 : Clinical Assessment and Management of Pediatric Malaria and Giardiasis

Total Duration of the Activity: 2 Hours
This practical enables students to assess pediatric cases of malaria and giardiasis through structured history taking, physical examination, and interpretation of laboratory reports. Students will identify symptoms such as fever, chills, hepatosplenomegaly, diarrhea, and weight loss in simulated patients. They will review treatment options using antiprotozoal agents, hydration, and dietary management. The session also includes public health strategies such as vector control, sanitation, and hygiene education for long-term disease prevention.
Instructions to Students (First 20 Minutes): Teacher will demonstrate clinical features of malaria and giardiasis using simulation models. Teacher will explain diagnostic clues such as fever patterns, gastrointestinal symptoms, and signs of organomegaly. Teacher will guide students on laboratory interpretation, including blood smear and stool microscopy, and review treatment protocols and preventive strategies.
Student Activities
Step 01 – (First 40 Minutes): Students will perform history taking and physical examination on simulated pediatric cases of malaria and giardiasis. Students will identify relevant signs such as cyclical fever, abdominal discomfort, or splenomegaly, and record findings systematically.
Step 02 – (Next 40 Minutes): Students will interpret mock lab reports including peripheral smear for malaria and stool microscopy for giardiasis. Students will prepare and present treatment plans covering antiprotozoal therapy, hydration, nutritional support, and family education. Group discussion will be used to refine clinical reasoning.
Assessment (Final 20 Minutes): Teacher will assess students using a structured checklist based on clinical skills and interpretation of diagnostic findings. Teacher will conduct a practical viva focusing on symptom differentiation, pharmacologic treatment plans, and preventive strategies for protozoal infections in pediatric practice.

Practical Training 29.9 : Clinical Evaluation and Management of Pediatric Helminthic Infestations

Total Duration of the Activity: 2 Hours
This session enables students to evaluate pediatric cases presenting with signs of helminthic infestations, including abdominal discomfort, anemia, malnutrition, and worm expulsion. Through simulated patient encounters, students will perform structured history-taking and physical examinations. They will interpret stool test reports, differentiate between types of helminths—such as threadworms, roundworms, and tapeworms—and formulate appropriate treatment and preventive strategies, including deworming protocols and hygiene education.
Instructions to Students (First 20 Minutes): Teacher will introduce the clinical presentation and types of helminthic infections in children. Teacher will demonstrate history-taking and physical examination techniques and review interpretation of stool microscopy findings. Teacher will explain standard deworming treatments and key preventive measures for helminth control.
Student Activities
Step 01 – (First 40 Minutes): Students will assess simulated pediatric cases by taking history and performing physical examinations. Students will identify signs such as perianal itching, poor appetite, pallor, or visible worms in stool and record clinical observations.
Step 02 – (Next 40 Minutes): Students will interpret mock stool test reports and identify specific helminthic organisms. Students will draft a management plan that includes pharmacological deworming, nutritional support, and preventive hygiene education. Group discussions will allow peer review and refinement of treatment protocols.
Assessment (Final 20 Minutes): Teacher will assess students using a checklist to evaluate accuracy in clinical assessment, interpretation of lab results, and clarity of treatment planning. Teacher will conduct a viva voce to assess understanding of parasite life cycles, treatment guidelines, and preventive strategies.

Practical Training 29.10 : Clinical Presentation and Management of Pediatric Fungal Infections

Total Duration of the Activity: 2 Hours
This session introduces students to the identification, diagnosis, and management of common and systemic pediatric fungal infections, including candidiasis, aspergillosis, cryptococcosis, mucormycosis, and histoplasmosis. Students will review OPD or simulated cases, identify clinical signs such as oral thrush, respiratory symptoms, or skin lesions, and interpret relevant lab reports such as KOH mounts and fungal cultures. Emphasis will be placed on differentiating superficial from systemic fungal infections and planning appropriate antifungal therapy.
Instructions to Students (First 20 Minutes): Teacher will provide a clinical orientation on pediatric fungal infections, including their presentations and modes of transmission. Teacher will demonstrate the interpretation of KOH mounts, fungal smears, and culture reports. Teacher will explain standard antifungal treatment protocols and when to escalate care based on systemic involvement.
Student Activities
Step 01 –(First 40 Minutes): Students will examine a simulated or real pediatric case presenting with suspected fungal infection. Students will record presenting symptoms, correlate findings with lab reports, and identify the likely fungal pathogen involved based on diagnostic interpretation.
Step 02 – (Next 40 Minutes): Students will prepare and present a case summary detailing clinical features, diagnostic findings, differential diagnosis, and management plan including antifungal therapies. Students will participate in a group OSCE station to demonstrate diagnostic reasoning and interpretation of fungal reports.
Assessment Methods (Final 20 Minutes): Teacher will assess students through case-based OSCE stations focusing on clinical evaluation, lab report interpretation, and

appropriate selection of antifungal therapies. Teacher will use structured rubrics to evaluate clarity, accuracy, and logic in students' diagnostic and treatment planning.

Experiential learning Activity

Experiential-Learning 29.1 : Patient Case Analysis on Systemic Lupus Erythematosus (SLE) and Rheumatoid Arthritis

Total Duration of the Activities 3 Hours
This case-based experiential learning activity focuses on systemic lupus erythematosus (SLE) and juvenile rheumatoid arthritis (JRA) in pediatric patients. Through group-based problem-solving, students will analyze clinical cases involving patient history, lab findings, and symptomatology, and construct diagnostic and therapeutic frameworks. Emphasis is placed on clinical reasoning, empathic communication, long-term patient support, and multidisciplinary care coordination. This session provides a blended learning experience, integrating case discussions, diagnostics interpretation, and patient education components.
Instructions to Students (First 30 Minutes) The Teacher will guide students through provided case histories, highlighting clinical presentations, diagnostic criteria, and laboratory findings. Students will discuss expected disease progression, treatment objectives, and patient-family support strategies in small groups under supervision, preparing to approach each case with both medical insight and empathy.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) In teams, students will analyze assigned cases of pediatric ystemic Lupus Erythematosus (SLE) and juvenile rheumatoid arthritis (JRA), identify key clinical markers, and outline a diagnostic strategy including laboratory and imaging requirements. They will document their findings using structured templates.
Step 02 (Second 60 Minutes) Each team will formulate a comprehensive management plan, including pharmacological protocols (e.g., steroids, immunosuppressants), supportive therapies (e.g., physiotherapy, counseling), and family education modules. A group summary will be prepared, focusing on the integration of long-term care strategies.
Assessment (Final 30 Minutes) The Teacher will assess students through an OSCE covering clinical examination and counseling components, along with patient management problems that test students' ability to prioritize treatment, monitor progress, and address complications. A structured checklist will be used to evaluate teamwork, clinical accuracy, and empathy in patient communication.

Experiential-Learning 29.2 : Case-Based Management of Mixed Connective Tissue Disease

Total Duration of the Activities 4 Hours
This experiential learning activity offers a comprehensive, case-based workshop focused on Mixed Connective Tissue Disease (MCTD). Students will explore the clinical overlap between lupus, scleroderma, and polymyositis, understand diagnostic complexities, and design individualized management plans. Through guided case analysis, team discussions, and presentations, participants will address autoimmune diagnostic markers, long-term monitoring, and multidisciplinary therapeutic strategies, while emphasizing patient education and chronic care support. The session encourages critical thinking and collaborative learning in the management of rare pediatric autoimmune conditions.
Instructions to Students (First 30 Minutes) The Teacher will distribute detailed case scenarios and explain the clinical relevance of Mixed Connective Tissue Disease (MCTD), including overlapping symptoms, autoimmune patterns, and initial lab markers. Students will work in small groups, review clinical features and investigations, and

begin formulating initial diagnostic plans, focusing on autoantibody profiles and differential diagnosis.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will identify key diagnostic indicators in the case scenarios, including clinical overlap among lupus, polymyositis, and scleroderma. They will map symptom clusters and propose a preliminary diagnosis.
Step 02 (Second 60 Minutes) Each group will design an investigation and management plan, including autoantibody testing, immunosuppressive therapies, monitoring of systemic involvement, and referral to specialists for collaborative care.
Step 03 (Third 60 Minutes) Students will prepare and present their comprehensive care plan, integrating diagnosis, treatment, patient education, and long-term follow-up strategies. Presentations will highlight real-world challenges, emphasizing multidisciplinary care in Mixed Connective Tissue Disease (MCTD).
Assessment (Final 20 Minutes):Students will be assessed through interactive group discussions and class presentations that evaluate diagnostic reasoning, care planning, and communication skills. Real-time interactions will gauge team collaboration and clinical logic. An online quiz will test conceptual clarity on Mixed Connective Tissue Disease (MCTD) diagnosis, management, and follow-up care. Teachers will use rubrics and peer inputs.

Experiential-Learning 29.3 : Problem Solving in Pediatric Fever: Differentiation and Management Using Case-Based Analysis

Total Duration of the Activities 3 Hours
This experiential learning activity provides a structured case-based platform for students to analyze multiple pediatric fever presentations, focusing on clinical differentiation between fever with identifiable focus (e.g., respiratory, urinary) and fever without a focus, including fever of unknown origin (FUO). Through peer-assisted discussions, students will apply problem-solving strategies, interpret clinical history, recognize red flags, and build family-centered treatment and communication plans. The session emphasizes early recognition, diagnostic accuracy, and evidence-based care in pediatric febrile illnesses.
Instructions to Students (First 20 Minutes) The Teacher will provide clinical case scenarios. Students must review history and presenting symptoms, and engage in group discussions to identify differential diagnoses and appropriate diagnostic pathways. They should also consider effective communication strategies for managing parental anxiety and reinforcing early interventions.
Students' Activities (70 min + 70 min = 140 minutes)
Step 01 (First 70 Minutes) Students will classify each case into fever with identifiable focus or fever without focus/FUO, identify probable causes, and outline required investigations (e.g., CBC, urinalysis, chest X-ray, blood cultures). They will document clinical reasoning and diagnostic rationale.
Step 02 (Second 70 Minutes) Students will formulate a management plan for each case, incorporating treatment regimens, monitoring protocols, and family education strategies. They will reflect on how early detection and timely response improve outcomes, especially in cases of FUO.
Assessment (Final 20 Minutes) The Teacher will conduct a scenario-based assessment and practical viva, supported by a structured checklist to evaluate students' clinical reasoning, differentiation accuracy, and management planning. Peer feedback and CBA (Case-Based Assessment) results will also be used for comprehensive evaluation.

Experiential-Learning 29.4 : Diagnosis and Management of Pediatric Viral Respiratory Infections through Case-Based Simulation

Total Duration of the Activities 3 Hours

This experiential learning activity engages students in case-based simulations of pediatric viral respiratory infections including influenza, parainfluenza, and Respiratory Syncytial Virus (RSV). Students will analyze clinical presentations, apply diagnostic skills, and design treatment protocols that include antiviral therapy, supportive care, and infection control strategies. The session also emphasizes family education, vaccination awareness, and community-level prevention, offering a blended learning experience supported by real-life case scenarios and facilitated peer interaction.
Instructions to Students (First 30 Minutes) The Teacher will assign simulated case histories of influenza, parainfluenza, and Respiratory Syncytial Virus (RSV), guiding students to review key symptoms, perform differential diagnosis, and discuss indications for antiviral use. Students will also be introduced to preventive strategies including vaccination, caregiver education, and home-based infection control measures.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will work individually or in small groups to analyze clinical case data, determining the most appropriate treatment plan including antiviral selection, supportive symptom management, and patient monitoring. They will document clinical rationale and plan follow-up protocols.
Step 02 (Second 60 Minutes) Students will prepare a family education plan that includes home care guidance, infection control practices, and vaccination schedules. Reflections will be documented on how community awareness and public health messaging influence the spread and control of viral respiratory infections.
Assessment (Final 30 Minutes) Students will undergo an OSPE-based practical assessment to demonstrate their ability to recognize symptoms, interpret findings, recommend antiviral/supportive therapy, and communicate key public health messages. A structured checklist and case documentation review will be used by the Teacher to assess decision-making and communication competencies.

Experiential-Learning 29.5 : Community Education on Vector-Borne and Viral Infections through Role Play and Game-Based Learning

Total Duration of the Activities 4 Hours
This experiential learning activity equips students with communication and advocacy skills for educating families about vector-borne and viral infections such as dengue, yellow fever, and Ebola. Through team-based poster development, mock community presentations, and role-play scenarios, students will learn to simplify medical information, address family concerns, and promote preventive strategies such as mosquito control, hygiene, and early healthcare-seeking behavior. The session fosters interactive, empathetic communication, while reflecting on barriers to health education and how to enhance community awareness.
Instructions to Students (First 30 Minutes) The Teacher will divide students into teams and instruct them to develop educational materials focused on symptom recognition, prevention methods, and when to seek care for dengue, yellow fever, and Ebola. Students will practice using simple language, visual aids, and culturally appropriate messaging for engaging with families in a community setting.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will collaboratively create posters, flyers, and verbal scripts that communicate information about vector-borne diseases. Educational tools will emphasize visual clarity, cultural relevance, and key preventive actions to reduce transmission.
Step 02 (Second 60 Minutes) Students will participate in mock community presentations and role-play exercises, simulating family education sessions. They will demonstrate communication skills, clarify doubts, and respond to commonly raised questions about symptoms, prevention, and treatment.
Step 03 (Third 60 Minutes) Students will reflect on their interactions, documenting concerns raised, family reactions, and barriers to engagement. Each group will summarize their learnings and propose strategies to enhance health education outreach and participation in real communities.

Assessment (Final 30 Minutes) The Teacher will assess student output using a structured checklist evaluating poster content, presentation clarity, and role play performance. Emphasis will be placed on accuracy of health messages, communication skills, and the ability to engage families effectively in community awareness activities.

Experiential-Learning 29.6 : Community Outreach and Education on Malaria Prevention and Hygiene

Total Duration of the Activities 3 Hours
This experiential learning activity involves community outreach to raise awareness about malaria prevention and hygiene practices. Students will create visual educational tools and demonstration kits, and then conduct interactive sessions with families, promoting preventive behaviors such as mosquito breeding site reduction, bed net usage, and early symptom recognition. Students will collect community feedback and reflect on local challenges in malaria control. The session emphasizes preventive care, environmental awareness, and the value of community-based education in controlling disease transmission.
Instructions to Students (First 30 Minutes) The Teacher will instruct students to form teams and develop visual educational content (e.g., posters, charts, demo kits) focused on hygiene, malaria prevention, and vector control. Students will prepare for interactive sessions with families, aiming to encourage participation and address community-specific issues. Instructions will stress the importance of clear messaging and empathetic communication.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will conduct field-based community education sessions, presenting their prepared posters and demonstration kits. They will demonstrate preventive techniques such as bed net usage, mosquito breeding control, and discuss the importance of early diagnosis in malaria treatment.
Step 02 (Second 60 Minutes) Students will interact with families, encouraging questions and documenting community perceptions, concerns, and feedback. They will conduct a practical survey to assess local awareness levels, household practices, and areas for improvement in community education.
Assessment (Final 30 Minutes) The Teacher will assess student performance using peer assessment, checklists, and field observation tools. Evaluation will focus on clarity of educational delivery, engagement with the community, effectiveness of visual aids, and depth of participation in the survey and discussion.

Experiential-Learning 29.7 : Integrated Clinical and Public Health Strategies for Pediatric Helminthic Infections

Total Duration of the Activities 3 Hours
This experiential learning session introduces students to the clinical management and public health control of helminthic infections such as hookworm, ascariasis, and cysticercosis. Through case-based learning, peer interaction, and public health planning, students will examine the diagnostic process, anthelmintic treatments, and sanitation-based prevention strategies. The session emphasizes the integration of clinical care with community-level interventions, including school-based deworming, hygiene education, and the analysis of real-world public health data from deworming initiatives.
Instructions to Students (First 30 Minutes) The Teacher will provide an overview of the clinical symptoms, transmission routes, and complications of common helminthic infections. Students will discuss treatment protocols (e.g., albendazole, mebendazole) and preventive strategies, including hygiene promotion, sanitation improvements, and the role of school-based deworming programs in large-scale infection control.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will work in teams to review case-based scenarios involving pediatric helminthic infections. Each group will formulate diagnostic plans,

recommend treatment regimens, and identify appropriate screening tools for clinical evaluation.
Step 02 (Second 60 Minutes) Groups will develop a public health campaign plan aimed at reducing community transmission of helminths. Plans will include community education modules, school awareness materials, and proposed strategies for monitoring and follow-up. Each team will present their strategy to the class.
Assessment (Final 30 Minutes) The Teacher will assess students through peer assessment, interactive participation, and a checklist-based evaluation of each group's public health presentation. Focus will be on the application of treatment protocols, preventive strategies, and communication of awareness tools suited for population-level interventions.

Experiential-Learning 29.8 : Case-Based Diagnosis and Management of Pediatric Fungal Infections

Total Duration of the Activities 3 Hours
This case-based experiential learning activity enables students to identify and manage pediatric fungal infections, including candidiasis, aspergillosis, and cryptococcosis. Students will review clinical case scenarios, interpret lab results (e.g., fungal cultures, imaging), and propose antifungal treatment plans considering drug choice, dosage, duration, and follow-up protocols. Emphasis is placed on teamwork, accurate diagnosis, and long-term care strategies, including adherence to therapy and prevention of recurrence.
Instructions to Students (First 30 Minutes) The Teacher will introduce the clinical context of pediatric fungal infections, assigning case materials that include patient histories, symptom descriptions, and lab findings. Students will engage in a guided group discussion on the diagnostic approach, antifungal pharmacotherapy (e.g., amphotericin B, azoles), and necessary investigations. Teams will prepare to collaboratively address the diagnostic and therapeutic challenges in their cases.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will work in teams to interpret clinical and laboratory data, identify the specific fungal pathogen, and formulate a treatment strategy including drug selection, dosing, duration, and patient monitoring. Each team will document the rationale behind their decisions.
Step 02 (Second 60 Minutes) Each team will present their case analysis and management plan to their peers. The presentation will include complication risks, monitoring protocols, and a discussion on the importance of treatment adherence in pediatric fungal infections. Peer feedback and critical analysis will follow.
Assessment (Final 30 Minutes) The Teacher will assess each student using a case-based assessment (CBA) rubric and peer assessment feedback. Focus will be on diagnostic accuracy, team collaboration, clarity of treatment rationale, and engagement in peer discussions.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - 25 Marks - ABQ/ LAQ/SAQ & Section B – 25 Marks: Puzzles, Word Puzzle, Viva. This assessment evaluates the student's understanding of pediatric infectious and immunological	4

disorders using puzzles, word-based classification tasks, and viva voce. Conditions include systemic lupus erythematosus, vasculitis variants, gram-positive/negative infections, parasitic illnesses, and emerging viral fevers. Emphasis is on clinical features, diagnosis, terminology recall, and therapeutic strategies.
Instructions to Students: Students will complete a puzzle activity based on pediatric infectious and immune-related conditions. A separate word puzzle tests your recall of terms, classifications, and causative agents. Following this, you will attend a short viva to explain clinical features and management of selected disorders. No reference material is permitted.
Instructions to Teachers: Prepare a word-based puzzle and term-matching grid focused on immunological and infectious pediatric disorders. Use viva questions to probe student understanding of symptomatology, diagnosis, and treatment approaches. Assess clarity, accuracy, and clinical reasoning. Use a checklist to ensure uniform scoring across students.
Mark Distribution : The total of 25 marks is distributed across four assessment components. The Puzzle Activity, testing classification, term recall, and matching, carries 8 marks. Symptom and Diagnosis Analysis is allotted 6 marks, while Therapeutic Reasoning, including medicines and prevention, is also marked for 6. Communication Clarity and Viva Interaction carry the final 5 marks.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

Module 30 : Dermatological disorders, Endocrinesystem & Reproductive system

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

Recognize and manage common pediatric dermatological conditions.
Describe thyroid and bone mineral physiology and related disorders.
Describe adrenal, parathyroid, and metabolic disorders in children.
Discuss diagnosis and management of diabetes and pediatric obesity.
Analyze pubertal and gonadal disorders affecting child development.
Identify pediatric genetic syndromes and apply principles of care.

M 30 Unit 1 Dermatological Disorders

30.1.1 Atopic Dermatitis & Psoriasis – Chronic inflammatory skin disorders, eczematous lesions, plaque formation, genetic predisposition, allergens, topical corticosteroids, systemic immunotherapy.
30.1.2 Impetigo & Scabies – Bacterial skin infection, superficial pustules, crusting lesions, scabies mite infestation, pruritus, transmission, antimicrobial and antiparasitic therapy.
30.1.3 Acne Vulgaris & Tinea – Sebaceous gland inflammation, comedones, fungal dermatophytosis, erythematous scaling lesions, topical retinoids, antifungal agents, hygiene measures.
30.1.4 Urticaria & Stevens-Johnson Syndrome – Hypersensitivity reactions, wheals, angioedema, mucocutaneous erosions, drug triggers, emergency care, antihistamines, corticosteroids.
30.1.5 Molluscum Contagiosum & Vitiligo – Viral papular lesions, hypopigmented macules, immune mechanisms, dermatologic examination, cryotherapy, topical agents, psychological support.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4	Describe about Atopic dermatitis, Psoriasis, Impetigo,Scabies.	1	Lecture	CK	Knows-how	DIS,L&PPT ,CBL
CO3,CO4,CO6	Conduct dermatologic exam and propose treatment for pediatric psoriasis.	2	Practical Training 30.1	PSY-GUD	Shows-how	D-BED,TBL,CD
CO3,CO4,CO6	Perform dermatologic exams and propose treatment for common infections.	2	Practical Training 30.2	PSY-GUD	Shows-how	SIM,PAL,CBL
CO3,CO4,CO6	Demonstrate confident clinical skills to examine and manage pediatric skin conditions.	2	Practical Training 30.3	PSY-MEC	Shows-how	PAL,D-BED,CBL,SIM
CO1,CO2,CO4	Identify clinical features and formulate treatment strategies for common pediatric dermatological conditions	3	Experiential-Learning 30.1	AFT-VAL	Does	PL,D-BED,CBL
CO1,CO4,CO8	Participate in clinical case studies, simulations and patient education activities to value the importance of early diagnosis.	3	Experiential-Learning 30.	AFT-VAL	Does	CBL,LRI,W

			2			
CO1,CO2,CO4	Describe the Acne vulgaris,Tinea,Urticaria,Molluscum Contagiosum and Vitiligo.	1	Lecture	CK	Knows-how	DIS,CBL,CD

M 30 Unit 2 Endocrine Disorders I

30.2.1 Physiology of Neuroendocrinology – Hypothalamic-pituitary axis, hormonal signaling pathways, neurohormone regulation, feedback mechanisms, endocrine integration, developmental endocrinology.
30.2.2 Thyroid Hormone Physiology – Thyroid hormone synthesis, secretion, transport, metabolic functions, growth influence, hypothalamic-pituitary-thyroid axis, regulatory feedback loops.
30.2.3 Thyroid Disorders – Hypothyroidism, hyperthyroidism, thyroiditis, goiter, thyroid nodules, clinical features, thyroid function tests, radionuclide imaging, pharmacological therapy.
30.2.4 Bone Mineral and Hormone Physiology – Parathyroid hormone action, vitamin D metabolism, calcitonin function, calcium-phosphate balance, bone remodeling, mineral regulation.
30.2.5 Calcium Disorders & Metabolic Rickets – Hypocalcemia, hypercalcemia, nutritional and genetic rickets, skeletal deformities, biochemical markers, calcium supplementation, vitamin D therapy.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5,CO7	Describe about Neuroendocrinology, physiology of Thyroid hormones and thyroid disorders	1	Lecture	CS	Knows-how	L&PPT,LS
CO2,CO4,CO6	Interpret thyroid tests and assess signs of dysfunction.	2	Practical Training 30.4	PSY-MEC	Shows-how	TBL,D-BED,CBL
CO1,CO2,CO5,CO7	Identify rickets signs and interpret biochemical and radiological findings.	2	Practical Training 30.5	PSY-GUD	Shows-how	TBL,CD,D-BED
CO1,CO2,CO5	Demonstrate empathetic communication and counseling strategies for pediatric thyroid	3	Experiential-	AFT-	Does	RP,TBL,S

,CO7	disorder management		Learning 30.3	VAL		IM,PL
CO1,CO2,CO7	Apply diagnostic and educational strategies in managing pediatric calcium and vitamin D disorders	3	Experiential-Learning 30.4	AFT-VAL	Does	PBL,RP,CBL,PL
CO1,CO2,CO5	Describe about the physiology of bone mineral hormone, calcium disorders and metabolic rickets	1	Lecture	AFT-VAL	Knows-how	L,CBL,L&GD

M 30 Unit 3 Endocrine Disorders II

30.3.1 Hypoparathyroidism & Hyperparathyroidism – Calcium imbalance, tetany, muscle cramps, bone demineralization, PTH levels, serum calcium and phosphate, diagnostic imaging, hormone therapy.
30.3.2 Adrenal Gland Disorders – Congenital adrenal hyperplasia, adrenal insufficiency, Cushing syndrome, cortisol abnormalities, electrolyte disturbances, hormone assays, steroid replacement.
30.3.3 Diabetes Mellitus – Type 1 and type 2 diabetes, polyuria, polydipsia, weight loss, blood glucose monitoring, insulin regimens, dietary management.
30.3.4 Complications of Diabetes Mellitus – Diabetic ketoacidosis, hypoglycemia, nephropathy, neuropathy, retinopathy, glycemic control strategies, long-term surveillance, complication prevention.
30.3.5 Obesity – Excessive weight gain, body mass index assessment, dietary patterns, sedentary lifestyle, comorbidities, behavioral therapy, exercise interventions.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5,CO7	Describe about disorders of parathyroid and adrenal gland disorders	1	Lecture	CS	Knows-how	L&PPT,ML
CO2,CO4,CO7	Perform diabetes monitoring and simulate insulin dose calculation.	2	Practical Training 30.6	PSY-MEC	Shows-how	SIM,CBL,D-BED,LRI
CO2,CO4,CO6	Identify and interpret signs of rickets and calcium imbalance.	2	Practical	PSY-	Shows-	DL,SIM,

			Training 30.7	MEC	how	CBL
CO1,CO5,CO7 ,CO8	Organise knowledge and skills to create comprehensive care plans for managing pediatric endocrine disorders.	3	Experiential-Learning 30.5	AFT-SET	Does	W,CBL,LRI
CO4,CO6,CO8	Promote healthy lifestyle behaviors through community-based counseling and motivational interviewing	3	Experiential-Learning 30.6	AFT-SET	Does	DIS,PBL,RP,PAL,FV
CO2,CO4,CO7	Interpret hormone reports and perform emergency adrenal management.	2	Practical Training 30.8	PSY-MEC	Shows-how	SIM,PAL
CO1,CO2,CO5	Describe about diabetes mellitus and complication of diabetes mellitus	1	Lecture	AFT-VAL	Knows-how	L,L&GD
CO1,CO2,CO5	Describe about causes,clinical presentation,complication and management of obesity	1	Lecture	AFT-VAL	Knows-how	L&PPT ,L_VC

M 30 Unit 4 Reproductive Disorders

30.4.1 Pubertal Development – Tanner staging, precocious puberty, delayed puberty, hormonal axis evaluation, bone age assessment, endocrine therapy, psychosocial support.
30.4.2 Female Gonad Disorders – Ovarian hypofunction, primary amenorrhea, pubertal delay, estrogen deficiency, hormonal assays, imaging studies, hormone replacement therapy.
30.4.3 Male Gonad Disorders – Testicular hypofunction, cryptorchidism, gynecomastia, micropenis, androgen levels, ultrasound evaluation, surgical and hormonal management.
30.4.4 Gynecological Issues – Prepubertal vaginal bleeding, breast development concerns, amenorrhea, genital examination, hormonal profile, multidisciplinary assessment, psychosocial counseling.
30.4.5 Genetic Disorders – Turner syndrome, Klinefelter syndrome, chromosomal anomalies, dysmorphic features, endocrine and fertility implications, genetic testing, lifelong follow-up.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO1,CO4,CO7	Describe about pubertal development and gynecological issues like vaginal bleeding in prepubertal children,amenorrhea.	1	Lecture	CAN	Know	L_VC,LS,L&PPT
CO2,CO4,CO6	Interpret hormone profiles and counsel female patients with gonadal disorders.	2	Practical Training 30.9	PSY-MEC	Shows-how	SIM,PAL
CO2,CO4,CO6	Perform genital examination and interpret hormonal profiles in boys.	2	Practical Training 30.10	PSY-MEC	Shows-how	PAL,CBL,SIM
CO1,CO2,CO3	Value interact with patients experiencing reproductive and genetic disorders.	4	Experiential-Learning 30.7	AFT-CHR	Does	SIM,CBL,RP,W
CO1,CO4,CO7	Demonstrate compassionate communication during genetic counseling of pediatric and adolescent patients with chromosomal syndromes	4	Experiential-Learning 30.8	AFT-CHR	Does	CBL,SIM,RP
CO1,CO2,CO5	Discuss analysis of causes, clinical presentation and management of male and female gonadal disorders.	1	Lecture	CS	Knows-how	L_VC,L&PPT
CO1,CO2,CO5	Analyze about the causes,clinical presentation and management of Turner syndrome and klinefelter syndrome.	1	Lecture	CS	Knows-how	CBL,L&PPT

Practical Training Activity

Practical Training 30.1 : Clinical Diagnosis and Management of Pediatric Psoriasis

Total Duration of the Activity: 2 Hours
This practical session involves the clinical assessment and diagnosis of pediatric psoriasis through examination of real or simulated cases. Students will evaluate plaque morphology, lesion distribution, and scaling patterns. A structured history will help identify disease triggers and comorbidities. Students will develop individualized management plans including topical agents, systemic therapy indications, and patient counseling. They will present findings and proposed treatment to peers, enhancing diagnostic reasoning and teamwork.

Instructions to Students (First 20 Minutes): Teacher will demonstrate a pediatric psoriasis case, highlighting skin lesion identification and history-taking techniques. Teacher will explain how to differentiate psoriasis from similar conditions such as eczema and tinea, and outline pharmacologic and non-pharmacologic treatment modalities.
Students' Activities
Step 01 – (First 40 Minutes): Students will examine the simulated or real case. Students will document plaque characteristics (e.g., well-demarcated borders, silvery scale), anatomical distribution, pruritus, and potential triggers such as stress or infections.
Step 02 – (Next 40 Minutes): Students will formulate a management plan including emollients, corticosteroids, calcineurin inhibitors, and lifestyle advice. Students will present the case to their peers, including diagnosis rationale, treatment decisions, and follow-up strategies.
Assessment Methods (Final 20 Minutes): Teacher will assess clinical performance through observation checklists and review of the documented case summary. A short viva will be conducted to test diagnostic logic, treatment justification, and communication skills. Presentations will be evaluated for clarity, collaboration, and understanding of psoriasis management.

Practical Training 30.2 : Clinical Assessment and Management of Impetigo and Scabies in Children

Total Duration of the Activity: 2 Hours
This session introduces students to the clinical recognition and management of impetigo and scabies in pediatric practice. Through patient simulation or live demonstrations, students will identify hallmark signs—honey-colored crusts in impetigo and burrows in scabies—perform dermatological examinations, and document findings. Case-based learning will guide students in distinguishing these infections from other dermatoses and in constructing treatment plans including appropriate antimicrobials or antiparasitics, hygiene instructions, and contact tracing protocols.
Instructions to Students (First 20 Minutes): Teacher will demonstrate examination techniques for pediatric dermatologic infections using simulated or real cases. Teacher will explain key features of impetigo and scabies, and guide students on documentation, infection control, and public health precautions.
Students' Activities
Step 01 – (First 40 Minutes): Students will perform dermatological examinations on simulated or actual pediatric patients. Students will take relevant history (e.g., contact with infected persons, hygiene practices), identify lesion types, and document findings.
Step 02 – (Next 40 Minutes): Students will prepare and present individualized management plans including topical or systemic antimicrobials, hygiene reinforcement, and family contact precautions. Students will engage in peer discussion to compare findings and refine decision-making.
Assessment Methods (Final 20 Minutes): Teacher will assess clinical skills using a structured checklist, conduct a short viva on differential diagnosis, treatment regimens, and prevention strategies, and evaluate student responses in a scenario-based case review to test communication and public health application.

Practical Training 30.3 : Clinical Diagnosis and Management of Molluscum Contagiosum and Vitiligo in Children

Total Duration of the Activity: 2 Hours
This session trains students to examine and differentiate pediatric dermatological conditions—Molluscum Contagiosum and Vitiligo—using simulated or real cases. Students will learn to document clinical findings accurately, interpret case histories, and propose evidence-based treatments including cryotherapy, topical therapy, and psychosocial

support. Emphasis is placed on early recognition, appropriate referral, and reducing stigma through effective caregiver communication and holistic follow-up planning.
Instructions to Students (First 20 Minutes): Teacher will demonstrate clinical findings using videos or real/simulated cases and explain lesion documentation techniques. Teacher will review guidelines on treatment options, counseling methods, and long-term monitoring strategies.
Students' Activities
Step 01 – (First 40 Minutes): Students will perform dermatological examinations on pediatric patients or simulation models. Students will identify key clinical features such as umbilicated papules or depigmented macules and record lesion morphology and distribution.
Step 02 – (Next 40 Minutes): Students will prepare individualized treatment plans for each condition, suggest cryotherapy or topical treatments for molluscum, and discuss photoprotection and counseling strategies for vitiligo. Students will participate in peer group discussions to refine differential diagnosis and holistic care planning.
Assessment Methods (Final 20 Minutes): Teacher will assess students via direct observation of lesion identification and communication skills using a checklist. Teacher will conduct a viva to evaluate diagnostic accuracy, understanding of treatment protocols, and ability to counsel caregivers regarding disease impact and follow-up.

Practical Training 30.4 : Clinical Evaluation and Management of Pediatric Thyroid Disorders

Total Duration of the Activity: 2 Hours
This session focuses on the clinical assessment and biochemical interpretation of pediatric thyroid disorders. Students will explore thyroid hormone synthesis, storage, secretion, and regulation. Through simulated cases, they will identify symptoms of hypothyroidism and hyperthyroidism, such as growth retardation, lethargy, or goitre. Thyroid function test reports (TSH, T3, T4) will be interpreted in relation to presenting signs. Students will prepare treatment plans and discuss hormone relevance in metabolism and development.
Instructions to Students (First 20 Minutes): Teacher will demonstrate thyroid gland examination and explain thyroid hormone physiology. Teacher will guide students through interpreting TSH, T3, and T4 results in the context of pediatric growth and developmental signs.
Students' Activities
Step 01 – (First 40 Minutes): Students will perform thyroid examinations on peers or simulated patients, noting clinical signs such as goitre, delayed growth, or fatigue. Students will review case sheets and interpret hormone test results for hypothyroidism or hyperthyroidism.
Step 02 – (Next 40 Minutes): Students will summarize one pediatric thyroid case, detailing signs, hormone levels, diagnosis, and management plan. Students will engage in group discussion on thyroid hormone functions in metabolism and brain development.
Assessment Methods (Final 20 Minutes): Teacher will assess students through scenario-based discussion, evaluating diagnostic logic and management accuracy. A practical viva will test comprehension of thyroid physiology and interpretation of lab values. Performance in thyroid examination and clarity in case presentation will also be evaluated.

Practical Training 30.5 : Clinical Diagnosis and Management of Calcium Disorders and Metabolic Rickets

Total Duration of the Activity: 2 Hours
This session enables students to identify clinical signs and biochemical features of calcium metabolism disorders, especially metabolic rickets. Through the evaluation of

real or simulated pediatric cases, learners will observe characteristic signs such as bowed legs, rachitic rosary, and frontal bossing. Lab values (calcium, phosphate, Alkaline Phosphatase, vitamin D) and X-ray findings will be used to build diagnostic accuracy. Students will interpret this data to plan supplementation therapy and provide dietary advice for long-term bone health.
Instructions to Students (First 20 Minutes): Teacher will demonstrate typical clinical features of rickets and walk through lab and radiograph interpretations. Teacher will explain the importance of differential diagnosis in calcium disorders and guide students on designing appropriate supplementation protocols.
Students' Activities
Step 01 – (First 40 Minutes):Students will review assigned clinical cases, examine for physical signs such as bow legs, dental delay, and swelling at costochondral junctions. Students will record clinical findings systematically using a structured format.
Step 02 – (Next 40 Minutes): Students will analyze provided biochemical and X-ray data, identify patterns suggestive of metabolic rickets, and prepare a management plan. Students will discuss the use of calcium, vitamin D, dietary changes, and monitoring protocols in peer teams.
Assessment Methods (Final 20 Minutes): Teacher will assess students using observation checklists for clinical examination and lab interpretation accuracy. A practical viva will be conducted to evaluate understanding of rickets etiology, diagnosis, and management, including rationale for supplementation and follow-up care.

Practical Training 30.6 : Clinical Assessment and Management of Juvenile Diabetes Mellitus

Total Duration of the Activity: 2 Hours
This session equips students to assess and manage Juvenile Diabetes Mellitus by distinguishing between type 1 and type 2 Diabetes Mellitus through clinical symptoms, history taking, and blood glucose monitoring. Students will observe and practice glucometer usage, simulate insulin administration, and formulate dietary and lifestyle plans. Role-play exercises will reinforce patient-family counseling skills, and practical tasks will enhance early recognition, insulin dosing, and long-term management strategies for pediatric diabetes.
Instructions to Students (First 20 Minutes): Teacher will demonstrate the proper technique for glucometer use and insulin device simulation. Teacher will explain how to take pediatric diabetes history, recognize hyperglycemic signs, and conduct peer-based discussions on dietary and lifestyle planning.
Students' Activities
Step 01 – (First 40 Minutes): Students will perform blood glucose testing on simulation models and interpret the results. Students will classify the diabetes type based on case symptoms and simulate insulin dose calculation based on carbohydrate intake and glucose readings.
Step 02 – (Next 40 Minutes): Students will develop individualized diet and lifestyle plans. Students will role-play caregiver counseling sessions covering glucose tracking, insulin administration steps, and hypoglycemia recognition and management.
Assessment Methods (Final 20 Minutes): Teacher will assess glucometer use and insulin simulation accuracy through observation checklists. Teacher will conduct a practical viva on juvenile diabetes management, and evaluate the clarity and clinical reasoning in student-developed case plans and role-play counseling performance.

Practical Training 30.7 : Clinical Evaluation and Management of Pediatric Calcium Disorders and Rickets

Total Duration of the Activity: 2 Hours

This session guides students through the clinical identification and management of pediatric calcium disorders, including nutritional rickets. Students will examine features such as bone deformities, wrist widening, delayed milestones, and hypotonia. Laboratory reports on serum calcium, phosphorus, and alkaline phosphatase, along with X-ray findings like cupping and fraying at the metaphysis, will be analyzed. Students will prepare a complete management plan focusing on calcium/vitamin D supplementation, nutritional counseling, and follow-up strategies to ensure skeletal recovery and prevention.
Instructions to Students (First 20 Minutes): Teacher will demonstrate physical signs of rickets, guide interpretation of relevant biochemical reports, and present X-rays of affected bones. Teacher will explain supplementation protocols and outline the steps for constructing a diagnostic and therapeutic case plan.
Students' Activities
Step 01 – (First 40 Minutes): Students will perform a physical examination for signs of calcium deficiency and rickets. Students will interpret provided lab findings and X-ray images, noting features such as frayed metaphyses and wrist deformities.
Step 02 – (Next 40 Minutes): Students will create a case summary including symptoms, lab findings, and radiological clues. Students will propose treatment plans with supplementation strategies, dietary changes, and preventive advice. Students will discuss their plan in peer groups and reflect on community-based prevention methods.
Assessment Methods (Final 20 Minutes): Teacher will assess physical examination skills and accuracy of lab/X-ray interpretation using a checklist. A practical viva will be conducted to evaluate understanding of calcium metabolism, diagnosis, and treatment strategy. Case-based responses will be reviewed for clarity and clinical justification.

Practical Training 30.8 : Clinical Assessment and Emergency Management of Pediatric Adrenal Disorders

Total Duration of the Activity: 2 Hours
This session enables students to clinically assess adrenal disorders in pediatric patients, including congenital adrenal hyperplasia (CAH), adrenal insufficiency, and Cushing syndrome. Using real or simulated cases, students will analyze hormone reports (Adrenocorticotropic Hormone, cortisol, 17-hydroxyprogesterone), identify clinical features like hyperpigmentation, hypotension, or moon facies, and practice emergency steroid injection techniques. They will prepare individualized care plans addressing hormone replacement, stress-dose steroid strategies, and caregiver education for crisis prevention and long-term adrenal monitoring.
Instructions to Students (First 20 Minutes): Teacher will demonstrate recognition of clinical signs in adrenal disorders and guide students in interpreting relevant hormone profiles. Teacher will explain and demonstrate emergency intramuscular steroid administration and outline care principles for adrenal crises.
Students' Activities
Step 01 – (First 40 Minutes): Students will analyze two clinical case scenarios—one depicting congenital adrenal hyperplasia (CAH) and another Cushing syndrome. Students will interpret lab reports, identify hallmark features, and determine a differential diagnosis and diagnostic plan.
Step 02 – (Next 40 Minutes): Students will practice emergency steroid injection techniques on simulation models. Students will formulate a management plan including hormone therapy, crisis preparedness, and caregiver education. They will participate in group discussions to review case summaries and reflect on emergency protocols.
Assessment Methods (Final 20 Minutes): Teacher will assess students via a checklist during emergency steroid administration. A practical viva will evaluate understanding of adrenal pathophysiology, hormone interpretation, and care planning. Case-based assessments will review diagnostic accuracy, treatment rationale, and communication in simulated caregiver counseling.

Practical Training 30.9 : Clinical Evaluation and Management of Pediatric Female Gonadal Disorders

Total Duration of the Activity: 2 Hours
This session enables students to clinically assess and manage pediatric female gonadal disorders, particularly ovarian hypofunction. Through the use of simulated case scenarios and hormone profiles, students will practice interpreting Luteinizing hormone,Follicle-stimulating hormone and estradiol levels and identifying clinical signs such as delayed puberty or amenorrhea. The session includes structured history-taking, case discussion, and simulation of patient counseling focused on long-term hormonal support, reproductive health education, and follow-up care.
Instructions to Students (First 20 Minutes): Teacher will introduce the clinical signs and developmental milestones related to female gonadal function. Teacher will demonstrate hormone panel interpretation and guide students through the diagnostic criteria for ovarian hypofunction. History-taking for menstrual delay and puberty onset will also be explained.
Students' Activities
Step 01 – (First 40 Minutes): Students will analyze simulated hormone panels and identify patterns indicative of primary ovarian insufficiency or Turner syndrome. Students will participate in case-based group discussions to correlate hormonal data with clinical findings.
Step 02 – (Next 40 Minutes): Students will conduct role-play simulations to counsel a simulated patient and guardian. The focus will be on explaining hormone therapy options, expected outcomes of pubertal induction, and the importance of long-term reproductive and psychosocial monitoring.
Assessment Methods (Final 20 Minutes): Teacher will assess students based on checklist-guided observation of counseling simulations and interpretation of hormonal profiles. A practical viva will be conducted to evaluate clinical reasoning, communication clarity, and knowledge of hormonal therapy indications and follow-up protocols.

Practical Training 30.10 : Clinical Evaluation and Management of Male Gonadal Disorders

Total Duration of the Activity:2 Hours
This session trains students to clinically assess male gonadal disorders such as cryptorchidism, testicular hypofunction, micropenis, and gynecomastia. Students will learn stepwise physical examination techniques and interpret hormonal investigations including Luteinizing hormone(LH), Follicle-stimulating hormone (FSH), testosterone, and prolactin levels. Using real or simulated case scenarios, they will formulate diagnostic impressions and outline treatment plans involving hormonal therapy and surgical referral. Emphasis will also be placed on caregiver communication through structured simulations.
Instructions to Students (First 20 Minutes): Teacher will demonstrate systematic testicular examination techniques and clinical signs of common gonadal disorders. Teacher will explain the hormonal axes involved, normal vs. abnormal lab values, and diagnostic criteria for hypogonadism and delayed puberty. Students will observe models or case videos and prepare for hands-on participation.
Students' Activities
Step 01 – (First 40 Minutes): Students will perform mock physical examinations using models or simulated patients. Students will assess and document parameters such as testicular size, descent, gynecomastia, and signs of virilization using a structured checklist.
Step 02 – (Next 40 Minutes): Students will interpret hormone profiles provided for different cases and correlate them with clinical features. Students will design individualized management plans including hormone therapy options, indications for surgical referral (e.g., orchiopexy), and long-term monitoring strategies. Plans will be shared and discussed in peer groups.

Assessment Methods (Final 20 Minutes): Teacher will assess the students using observation checklists for examination skills and accuracy of clinical interpretation. A structured viva will be conducted to evaluate knowledge of hormone physiology, differential diagnosis, and therapeutic decisions. Case documentation will be reviewed for completeness and clinical relevance.

Experiential learning Activity

Experiential-Learning 30.1 : Diagnosis and Management of Common Pediatric Skin Conditions:

Total Duration of the Activities 3 Hours
This experiential learning activity integrates case-based learning and bedside demonstrations to train students in the recognition and management of common pediatric skin conditions, including atopic dermatitis, psoriasis, impetigo, and scabies. Students will observe and practice lesion identification, interpret diagnostic findings, and design treatment protocols. Through hands-on workshops, students will simulate topical medication application and prepare hygiene education materials for patient counseling. Emphasis is placed on infection control, prevention of reinfection, and practical skill building.
Instructions to Students (First 30 Minutes) The Teacher will demonstrate dermatological examination techniques, highlighting how to observe lesion morphology, identify signs of infection, and correlate findings with diagnoses. Students will be guided in interpreting basic diagnostic reports (e.g., skin scrapings, bacterial cultures) and understanding treatment guidelines. Instructions will include principles of hygiene education and reinfection prevention for patient care.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will engage in simulated case discussions focused on atopic dermatitis and psoriasis, recording clinical observations, proposing differential diagnoses, and outlining treatment plans based on condition severity and patient profile.
Step 02 (Second 60 Minutes) In a hands-on workshop, students will perform diagnostic techniques (e.g., lesion scraping, inspection) for impetigo and scabies using simulated models. They will also prepare patient education materials on hygiene practices and strategies for reinfection prevention.
Assessment (Final 30 Minutes) The Teacher will conduct a case-based assessment (CBA) and evaluate practical performance using a structured checklist. Students will be assessed on their ability to identify dermatologic conditions, execute diagnostic steps, and effectively communicate hygiene practices to prevent reinfection in pediatric patients.

Experiential-Learning 30.2 : Manage Urticaria, Steven Johnson syndrome, Molluscum Contagiosum and Vitiligo.

Total Duration of the Activities 3 Hours
This experiential learning activity is a hands-on clinical workshop aimed at strengthening students' diagnostic and therapeutic competencies in managing pediatric adrenal gland disorders, especially congenital adrenal hyperplasia (CAH) and adrenal insufficiency. Students will learn to identify clinical signs such as hyperpigmentation and electrolyte imbalances, interpret hormonal investigations like serum cortisol and Adrenocorticotropic Hormone (ACTH) levels, and develop individualized treatment plans involving hydrocortisone and fludrocortisone. The focus is on adherence education, emergency planning, and family-centered support to prevent adrenal crises.
Instructions to Students (First 30 Minutes) The Teacher will deliver an overview of the pathophysiology, clinical signs, and diagnostic protocols for congenital adrenal hyperplasia (CAH) and adrenal insufficiency. Students will practice interpreting lab results under supervision and discuss treatment goals for acute and chronic

management, with emphasis on hormonal therapy adherence and family education.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will work on assigned clinical case scenarios, record relevant diagnostic findings, and formulate treatment plans based on hormone levels, symptom patterns, and crisis risk. Each plan will include appropriate hormone replacement doses (hydrocortisone, fludrocortisone) and supportive care recommendations.
Step 02 (Second 60 Minutes) Each group will present their treatment strategy, justifying their pharmacologic approach, education plan for caregivers, and crisis prevention framework. Students will reflect on outcomes, barriers to adherence, and propose long-term care models including follow-up scheduling.
Assessment (Final 30 Minutes) The Teacher will conduct a case-based assessment and a practical viva, using a structured checklist to evaluate each student's ability to accurately diagnose, formulate logical treatment protocols, and articulate preventive care strategies. The assessment will focus on clinical reasoning, safety in management, and clarity in patient-family communication.

Experiential-Learning 30.3 : Simulation and Role-Play-Based Counseling for Pediatric Thyroid Disorders

Total Duration of the Activities 3 Hours
This simulation-based activity helps students develop counseling and clinical skills related to pediatric thyroid disorders, including hypothyroidism, hyperthyroidism, and goitre. Students will interpret thyroid function tests (T3, T4, TSH), practice neck palpation, and conduct role-play counseling sessions to educate patients and families. Emphasis will be on dietary guidance (e.g., iodine intake, goitrogen avoidance), lifestyle changes, and the importance of medication adherence. Students will reflect on communication strategies, ensuring their approach is both clinically accurate and empathetically delivered.
Instructions to Students (First 30 Minutes) The Teacher will introduce the clinical basics of pediatric thyroid disorders, demonstrate neck palpation techniques, and explain how to interpret thyroid function tests (TFTs). Students will receive role-play scripts and guidance on delivering clear, compassionate counseling. Instructions will emphasize key messages on dietary changes, lifestyle management, and adherence to medication protocols.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will review simulated case records, perform clinical observations, and interpret TFT reports to classify the case as hypothyroidism, hyperthyroidism, or goitre. They will document clinical impressions and prepare counseling points.
Step 02 (Second 60 Minutes) Students will conduct role-play counseling sessions, simulating interactions with pediatric patients and caregivers. Each session will cover diagnosis explanation, dietary advice, lifestyle modifications, and medication adherence. Students will reflect on patient engagement, clarity of messaging, and emotional responsiveness.
Assessment (Final 30 Minutes) The Teacher will use a structured checklist and peer assessment tools to evaluate students' counseling performance, focusing on clinical accuracy, communication clarity, and sensitivity to patient concerns. Feedback will include performance in simulation, and documentation of reflective insights.

Experiential-Learning 30.4 : Case-Based Learning on Pediatric Calcium Disorders and Bone Health Education

Total Duration of the Activities 3 Hours

This experiential learning activity introduces students to the identification and management of pediatric calcium disorders, including hypocalcemia, hypercalcemia, and vitamin D deficiency. Students will analyze simulated or real case studies, interpret biochemical profiles, and propose lifestyle and dietary interventions. They will observe or role-play patient interactions to learn how health education is provided regarding bone health, nutrition, sunlight exposure, and supplementation. Emphasis is placed on early diagnosis, preventive strategies, and long-term care planning for optimal skeletal development.
Instructions to Students (First 30 Minutes) The Teacher will brief students on common pediatric calcium-related disorders, including symptoms (e.g., cramps, growth delay, bone deformities), and review treatment protocols involving diet, sunlight exposure, and supplementation. Students will observe or simulate healthcare interactions to understand how counseling on bone health is delivered to patients and caregivers.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will analyze assigned case scenarios, interpret calcium and vitamin D lab values, and propose clinical diagnoses. They will formulate interventions based on symptoms and lab findings, recommending calcium-rich diets, sunlight exposure, and vitamin D supplementation.
Step 02 (Second 60 Minutes) Students will document their case findings, emphasizing the role of nutrition and physical activity in supporting bone health. They will create long-term care plans including monitoring, caregiver counseling, and prevention of recurrence through lifestyle education.
Assessment (Final 30 Minutes) The Teacher will assess students using a structured checklist and case-based assessment rubric. Students will be evaluated on their accuracy in lab interpretation, completeness of care planning, and the clarity of their educational strategies observed or role-played during the session.

Experiential-Learning 30.5 : Diagnosis and manage adrenal gland disorders.

Total Duration of the Activities 3 Hours
This experiential learning activity is a hands-on clinical workshop designed to enhance student understanding of pediatric adrenal gland disorders, particularly congenital adrenal hyperplasia (CAH) and adrenal insufficiency. Students will learn to identify clinical signs such as hyperpigmentation and electrolyte imbalances, interpret hormonal investigations (e.g., serum cortisol, Adrenocorticotropic Hormone levels), and develop individualized treatment strategies using hormone replacement therapies such as hydrocortisone and fludrocortisone. The session focuses on preventing adrenal crises through adherence education and crisis planning.
Instructions to Students (First 30 Minutes) The Teacher will provide an overview of the pathophysiology, clinical signs, and diagnostic protocols for adrenal disorders, including CAH and adrenal insufficiency. Students will practice interpreting lab results under supervision and discuss management strategies for both acute emergencies and chronic conditions, emphasizing the importance of medication adherence and family education.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will analyze assigned clinical case scenarios, record relevant diagnostic findings, and formulate treatment plans based on hormone levels, symptoms, and risk for adrenal crisis. Plans will include dosing protocols for hydrocortisone, fludrocortisone, and supportive care.
Step 02 (Second 60 Minutes) Each group will present their treatment plan, explaining the rationale for hormone replacement, patient and caregiver education strategies, and the importance of adherence in preventing adrenal crises. Groups will reflect on expected case outcomes, management challenges, and long-term follow-up.
Assessment (Final 30 Minutes) The Teacher will conduct a case-based assessment and practical viva, supported by a checklist evaluating students' accuracy in diagnosis, treatment formulation, and clarity in explaining prevention and follow-up measures. Emphasis will be placed on clinical reasoning, patient safety, and therapeutic decision-making.

Experiential-Learning 30.6 : Community Counseling for Pediatric Obesity Prevention through Motivational Interviewing

Total Duration of the Activities 3 Hours
This experiential learning activity involves a community health outreach project where students will educate families on preventing pediatric obesity through interactive counseling and motivational interviewing. Students will prepare pamphlets and posters on topics such as balanced nutrition, physical activity, and screen time reduction, and use these to conduct family-centered sessions. Emphasis is placed on community engagement, behavior change facilitation, and the use of culturally sensitive communication to empower families to adopt sustainable health practices for their children.
Instructions to Students (First 30 Minutes) The Teacher will organize students into small groups and guide them in preparing visual aids and a counseling strategy using motivational interviewing techniques. Students will learn to communicate key health messages about diet, physical activity, and screen time, tailored to local community needs and cultural beliefs.
Students' Activities (60 min + 60 min = 120 minutes)
Step 01 (First 60 Minutes) Students will conduct family counseling sessions, delivering prepared educational materials and using motivational interviewing to discuss challenges and guide families in adopting healthy lifestyle changes. Sessions will promote child-centered and family-inclusive discussions.
Step 02 (Second 60 Minutes) Students will document family feedback, note barriers to behavior change, and reflect on which communication techniques and counseling approaches were most effective. Teams will compile a group summary report of common themes, challenges, and successful interventions.
Assessment (Final 30 Minutes) The Teacher will assess students using a structured checklist and peer assessment, focusing on the clarity of health messages, use of motivational interviewing, and responsiveness to family concerns. Students will also submit a reflective report summarizing their learning, insights, and practical challenges encountered during community interaction.

Experiential-Learning 30.7 : Clinical Workshop on Diagnosis and Management of Pediatric Gonadal Disorders

Total Duration of the Activities 4 Hours
This experiential learning activity involves a hands-on clinical workshop designed to train students in the recognition, diagnosis, and management of male and female gonadal disorders, including delayed puberty, hypogonadism, and gonadal dysgenesis. Through interpretation of hormonal profiles, clinical assessments, and case-based discussions, students will learn to formulate individualized treatment plans involving hormone therapy, fertility preservation, and psychosocial support. Emphasis is placed on early diagnosis, multidisciplinary care, and patient-centered communication in pediatric and adolescent reproductive endocrinology.
Instructions to Students (First 30 Minutes) The Teacher will guide students through a clinical overview of common gonadal disorders, emphasizing physical signs, hormone panel interpretation, and standardized diagnostic techniques. Students will be introduced to the goals of treatment, including when to initiate hormone replacement therapy, refer for specialist care, or recommend psychosocial counseling and lifestyle modification.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will analyze simulated clinical case studies, interpreting lab findings (Luteinizing hormone, Follicle-stimulating hormone, estradiol, testosterone) and physical signs to determine the specific diagnosis (e.g., constitutional delay, primary hypogonadism, gonadal dysgenesis).
Step 02 (Second 60 Minutes) Students will formulate individualized treatment plans, including pharmacologic therapy (e.g., hormone replacement), fertility preservation

options, psychosocial counseling, and lifestyle advice. Each group will present their case approach with justification.
Step 03 (Third 60 Minutes) Students will reflect on barriers to early diagnosis, such as stigma, lack of awareness, or access to care. They will discuss how patient-centered strategies and multidisciplinary teamwork can improve long-term outcomes, then document insights in a summary report.
Assessment (Final 30 Minutes) The Teacher will evaluate students through a practical viva and review of a structured checklist covering diagnostic accuracy, clarity of treatment planning, and understanding of holistic care needs. Each student will submit a reflective report capturing learning outcomes, clinical reasoning, and their approach to individualized, multidisciplinary care.

Experiential-Learning 30.8 : Simulation-Based Genetic Counseling for Turner's and Klinefelter Syndromes

Total Duration of the Activities 4 Hours
This simulation-based experiential learning activity enables students to practice genetic counseling for pediatric and adolescent patients with Turner's Syndrome and Klinefelter Syndrome. Through role-play, students simulate real-life sessions with patients and family members, learning to communicate complex genetic information with clarity, compassion, and emotional sensitivity. The workshop enhances interpersonal confidence, reinforces clinical knowledge, and strengthens the ability to design holistic, team-based care plans in a respectful and supportive environment.
Instructions to Students (First 30 Minutes) The Teacher will brief students on the clinical features, genetic basis, and diagnostic criteria of Turner's Syndrome and Klinefelter Syndrome. Students will also learn the principles and goals of genetic counseling, focusing on how to convey sensitive information clearly, while supporting patients and families with empathy. Preparation will include counseling scripts and discussion of emotional dynamics in genetic diagnoses.
Students' Activities (60 min + 60 min + 60 min = 180 minutes)
Step 01 (First 60 Minutes) Students will participate in role-play exercises acting as genetic counselors, delivering diagnoses, explaining treatment options, and outlining long-term care strategies for Turner's or Klinefelter Syndrome. They will demonstrate clear communication, empathy, and emotional support skills.
Step 02 (Second 60 Minutes) Students will switch roles to act as patients or family members, experiencing the emotional impact of receiving a diagnosis. They will reflect on the language, tone, and approach used during counseling, helping them better understand patient perspectives.
Step 03 (Third 60 Minutes) Students will engage in group reflection, discussing communication strategies, challenges, and key takeaways. They will summarize their insights into patient-centered care, including how to incorporate educational resources, psychosocial support, and multidisciplinary involvement into counseling sessions.
Assessment (Final 30 Minutes) The Teacher will assess each student using peer feedback and a structured long answer question (LAQ) on the process, content, and emotional management involved in genetic counseling. Evaluation will focus on the student's clarity of explanation, empathy, and effectiveness in addressing patient/family concerns during role-play.

Modular Assessment

Assessment method	**Hour**
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 6C.	4

Section A – 25 Marks: Case-Based Assessment and Mini-CEX. This 25-mark case-based Mini-CEX evaluates clinical skills in diagnosing and managing pediatric dermatological and endocrine conditions. Students analyze real or simulated clinical cases such as atopic dermatitis, hypothyroidism, acne, or calcium disorders. Emphasis is placed on symptom interpretation, diagnosis, therapeutic planning, and patient communication using modern pediatric principles. Instructions to Students: Students will be presented with simulated or real pediatric cases reflecting common dermatological or endocrine presentations. Perform history-taking, identify symptoms, and formulate a working diagnosis. Propose treatment plans and explain them clearly, considering patient-specific and hormonal implications. Students performance will be observed and assessed during a brief Mini-CEX-style clinical interaction. No reference material allowed. Instructions to Teachers: Use structured pediatric cases covering skin and endocrine disorders. Observe and evaluate students' ability to conduct clinical interviews, analyze symptoms, select diagnostic investigations, and plan treatment. Assess clarity of communication, diagnostic accuracy, and justification of management using a Mini-CEX rubric. Include simulated patients or case actors wherever feasible. Mark Distribution: The 25 marks are distributed as follows: Case History and Symptom Analysis – 7 marks, Diagnosis and Differential Identification – 6 marks, Therapeutic Plan (Drugs, Counseling, Prevention) – 6 marks, Clinical Reasoning and Prognosis – 3 marks, and Communication and Mini-CEX Interaction – 3 marks. & Section B – 25 Marks: Practical Case Taking and Clinical Examination. This 25-mark practical examination evaluates students' ability to assess pediatric endocrine and metabolic conditions through structured case taking and clinical interpretation. Conditions include diabetes, parathyroid dysfunctions, adrenal and gonadal disorders, puberty-related concerns, and obesity. Emphasis is placed on diagnostic reasoning, treatment planning, and patient/caregiver communication in simulated clinical settings. Instructions to Students: Students will be provided with a clinical case scenario involving a pediatric endocrine or metabolic disorder. Conduct structured case-taking, analyze signs and symptoms, propose investigations, and outline a suitable management plan. Explain the condition and treatment approach clearly. Be prepared for a short viva to justify your clinical decisions. No reference material allowed. Instructions to Teachers: Prepare simulated pediatric cases involving conditions such as diabetes, puberty disorders, or adrenal abnormalities. Evaluate students' skills in eliciting relevant history, interpreting findings, and planning management. Use standardized rubrics to assess diagnostic clarity, therapeutic logic, and communication with caregivers during practical interactions or bedside demonstrations. Mark Distribution : The 25 marks are allocated as follows: Structured History Taking and Symptom Identification – 7 marks, Diagnostic Reasoning and Investigation Planning – 6 marks, Therapeutic Planning and Lifestyle Advice – 6 marks, Communication with Patient/Caregiver – 3 marks, and Viva Justification and Confidence – 3 marks. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	

Semester No : 6

Module 31 : Oncology and Metabolic disorders

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

Describe the biology of childhood cancers and their classification.
Discuss the diagnosis and treatment of pediatric hematologic malignancies.
Describe common pediatric solid tumors and their management.
Assess inborn errors of metabolism and therapeutic approaches.
Apply clinical knowledge to manage metabolic and lysosomal disorders.
Identify genetic and enzymatic disorders and propose dietary interventions.

M 31 Unit 1 Leukemia and Lymphoma

31.1.1 Biology of Cancers – Cellular transformation, oncogenes, tumor suppressor genes, genetic mutations, carcinogenesis, pediatric malignancy patterns, molecular pathways, cancer predisposition.
31.1.2 Acute Lymphoblastic Leukemia (ALL) – Lymphoid blast proliferation, fever, pallor, bleeding, bone marrow examination, chemotherapy phases, CNS prophylaxis, supportive care.
31.1.3 Acute Myelogenous Leukemia (AML) – Myeloid blast crisis, anemia, infection, organomegaly, cytogenetics, intensive chemotherapy, stem cell transplantation.
31.1.4 Chronic Myelogenous Leukemia (CML) – Philadelphia chromosome, BCR-ABL fusion gene, leukocytosis, splenomegaly, tyrosine kinase inhibitors, disease monitoring, molecular remission.
31.1.5 Lymphoma – Hodgkin and Non-Hodgkin types, lymphadenopathy, systemic symptoms, biopsy diagnosis, staging investigations, combined modality therapy.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe the cellular mechanisms and genetic mutation.	1	Lecture	CS	Knows-how	L&PPT ,L
CO3,CO5,CO6	Implement chemotherapy support for pediatric Acute Lymphoblastic Leukemia (ALL) with simulation accuracy.	2	Practical Training 31.1	PSY-ADT	Shows-how	CBL,D-M,SIM
CO3,CO5,CO6	Demonstrate supportive care techniques in simulated Acute Myeloid Leukemia (AML) cases.	2	Practical Training 31.2	PSY-GUD	Shows-how	CBL,D-M ,D,LRI,SIM
CO3,CO5,CO6	Develop diagnostic and treatment protocols confidently for pediatric lymphoma.	2	Practical Training 31.3	PSY-GUD	Shows-how	D-M,CBL ,SIM
CO2,CO5,CO7	Describe cancer biology, focusing on genetic mutations and cellular mechanisms in pediatric leukemia, including the Philadelphia chromosome in Chronic Myeloid Leukemia (CML).	4	Experiential-Learning 31. 1	AFT-VAL	Does	DL,SIM, CBL,TBL ,W
CO2,CO5,CO7	Analyze multidisciplinary roles for Acute Myeloid Leukemia (AML) care and synthesize care plans	3	Experiential-Learning 31. 2	AFT-VAL	Does	SIM,RP,CBL,TBL
CO2,CO7	Analyze biopsy, imaging, and plan individualized lymphoma treatment	4	Experiential-Learning 31. 3	AFT-VAL	Does	W,DIS,PL,CBL,SDL
CO2,CO7	Describe the oncogenes, tumor suppressor genes.	1	Lecture	AFT-VAL	Knows-how	L&GD,L &PPT ,L
CO2,CO7	Describe the clinical presentation and management of neuroblastoma.	1	Lecture	CS	Knows-how	L&GD,L, L&PPT

M 31 Unit 2 Malignant Tumors in Children

31.2.1 Brain Tumors – Medulloblastoma, glioma, ependymoma, raised intracranial pressure, imaging techniques, neurosurgical intervention, radiotherapy, chemotherapy.
31.2.2 Neuroblastoma – Neural crest origin, abdominal mass, catecholamine secretion, metastasis patterns, histopathology, risk stratification, multimodal treatment.
31.2.3 Wilms Tumor – Renal malignancy, abdominal swelling, hematuria, ultrasonography, nephrectomy, chemotherapy regimens, prognosis factors.
31.2.4 Soft Tissue Tumors & Bone Tumors – Rhabdomyosarcoma, osteosarcoma, Ewing sarcoma, localized pain, swelling, biopsy confirmation, limb-sparing surgery, adjuvant therapy.
31.2.5 Gonadal and Germ Cell Neoplasms – Testicular and ovarian masses, alpha-fetoprotein, beta-hCG, imaging, surgical excision, chemotherapy protocols.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe the clinical presentations, and diagnostic approaches of brain tumors, Wilms tumor	1	Lecture	AFT-VAL	Knows-how	L&PPT,L
CO3,CO5,CO6	Conduct and interpret tumor assessment procedures with clinical confidence.	2	Practical Training 31.4	PSY-MEC	Shows-how	SIM,CBL,D-BED,X-Ray
CO2,CO5,CO7	Perform an interactive case study that simulates the diagnosis and treatment planning for pediatric brain tumors, covering surgical, radiation, and chemotherapy options.	3	Experiential-Learning 31.4	AFT-RES	Does	SIM,CBL,DIS,PL,TBL
CO2,CO7	Describe the causes, clinical presentations, management, and diagnostic approaches. bone and germ cell tumors.	1	Lecture	CS	Knows-how	L,L&PPT,L&GD
CO3,CO5,CO6	Interpret neuroblastoma stage and formulate treatment plan.	2	Practical Training 31.5	PSY-MEC	Shows-how	D,LS,SIM,CBL

M 31 Unit 3 Metabolic Disorders I

31.3.1 Inborn Errors of Metabolism – Genetic enzyme deficiencies, metabolic pathway disruption, neonatal screening, nonspecific symptoms, diagnostic panels, supportive and targeted therapies.
31.3.2 Phenylketonuria (PKU) – Phenylalanine hydroxylase deficiency, intellectual disability, musty odor, Guthrie test, low-phenylalanine diet, lifelong dietary

monitoring.
31.3.3 Galactosemia – Galactose-1-phosphate uridyltransferase deficiency, vomiting, jaundice, hepatomegaly, reducing substances in urine, galactose-restricted diet.
31.3.4 Maple Syrup Urine Disease (MSUD) – Branched-chain ketoaciduria, sweet-smelling urine, lethargy, metabolic acidosis, amino acid quantification, protein-restricted diet, emergency care.
31.3.5 Gaucher Disease – Lysosomal storage disorder, glucocerebrosidase deficiency, hepatosplenomegaly, bone pain, anemia, enzyme replacement therapy, genetic counseling.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Correlate understanding of inborn errors of metabolism, including their genetic causes, clinical presentations, and treatment strategies of phenylketonuria and galactosemia	1	Lecture	CAN	Knows-how	L&PPT ,L&GD,L
CO3,CO4,CO5	Perform pediatric assessment and plan management for metabolic disorders.	2	Practical Training 31.6	PSY-ADT	Shows-how	RP,CBL, SIM
CO3,CO4,CO5	Apply clinical reasoning to manage pediatric phenylketonuria (PKU) and maple syrup urine disease (MSUD).	2	Practical Training 31.7	PSY-ADT	Shows-how	SIM,IBL, CBL
CO2,CO7	Demonstrate empathy and guide families on dietary management	3	Experiential-Learning 31. 5	AFT-SET	Does	RP,PAL, C_L,DIS
CO2,CO7	Describe inborn errors of metabolism, including their genetic causes, clinical presentations, and treatment strategies of Maple syrup urine disease and gaucher disease.	1	Lecture	CS	Knows-how	L,L&GD
CO2,CO7	Discuss about causes,clinical features and management of Inborn error of metabolism.	1	Lecture	CS	Knows-how	L,L&GD
CO3,CO5,CO6	Diagnose and manage Gaucher disease using simulated scenarios.	2	Practical Training 31.8	PSY-GUD	Shows-how	SIM,CBL ,RP

M 31 Unit 4 Metabolic Disorders II

31.4.1 Tay-Sachs Disease – Hexosaminidase A deficiency, neurodegeneration, cherry-red spot, developmental regression, supportive care, palliative strategies, genetic counseling.
31.4.2 Fatty Acid Oxidation Disorders – Medium-chain acyl-CoA dehydrogenase deficiency, hypoglycemia, lethargy, fasting intolerance, metabolic crisis, dietary fat modification, emergency protocols.
31.4.3 Mitochondrial Disorders – Energy metabolism defects, lactic acidosis, muscle weakness, organ dysfunction, genetic evaluation, supportive multisystem therapy, long-term monitoring.
31.4.4 Wilson's Disease – Copper metabolism defect, Kayser-Fleischer rings, hepatic and neurological symptoms, ceruloplasmin testing, chelation therapy, low-copper diet, family screening.
31.4.5 Glycogen Storage Disorders – Enzyme deficiencies, hepatomegaly, hypoglycemia, muscle cramps, metabolic derangements, cornstarch therapy, enzyme replacement, genetic diagnosis.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe the Glycogen storage disorder, Fatty acid oxidation disorders and mitochondrial disorders	1	Lecture	CAP	Knows-how	L&GD,L,L&PPT
CO2,CO5,CO7	Analyze clinical and lab findings to manage Wilson's Disease.	2	Practical Training 31.9	PSY-SET	Shows-how	SIM,CBL,PL,LRI
CO3,CO5,CO6	Perform clinical evaluation and propose management for glycogen storage disorders.	2	Practical Training 31.10	PSY-GUD	Shows-how	D,SIM,PL,CBL
CO4,CO7,CO8	Perform a short presentation covering key points about Tay-Sachs disease	3	Experiential-Learning 31.6	AFT-CHR	Does	PER,PAL,DIS
CO4,CO5,CO7	Integrate interdisciplinary strategies in managing mitochondrial disorders	3	Experiential-Learning 31.7	AFT-CHR	Does	CBL,TBL,SIM
CO2,CO3,CO6	Plan dietary interventions for pediatric glycogen storage disorders	3	Experiential-	AFT-	Does	CBL,W,P

			Learning 31.8	CHR		AL
CO2,CO7	Discuss about the tay-sachs disease and wilson's disease	1	Lecture	CE	Knows-how	DIS,L&GD,L

Practical Training Activity

Practical Training 31.1 : Simulation-Based Management of Pediatric Acute Lymphoblastic Leukemia (ALL) with Chemotherapy Support

Total Duration of the Activities: 2 Hours
This session trains students to manage pediatric Acute Lymphoblastic Leukemia (ALL) cases through simulation. Students will review chemotherapy protocols, dosage adjustments, and monitor common side effects like nausea, mucositis, and febrile neutropenia. They will apply hydration protocols, antiemetic therapy, and nutrition strategies. The session enhances clinical judgment, communication, and timely documentation while promoting teamwork and protocol-based care adaptation in pediatric oncology.
Instructions to Students (First 20 Minutes): Teacher will explain the phases of Acute Lymphoblastic Leukemia (ALL) treatment, dosage planning based on weight/body surface area, and anticipated complications. Teacher will demonstrate a simulated patient setup with chemotherapy charts and guide students on monitoring for side effects. Teacher will emphasize fluid-electrolyte management, temperature checks, and mucosal care.
Students' Activities (Next 80 mins - 40 mins + 40 mins)
Step – 01 (First 40 Minutes): Students will interact with the simulated Acute Lymphoblastic Leukemia (ALL) case, administer chemotherapy as per mock protocol, observe for side effects (oral ulcers, fever, vomiting), and implement supportive care like hydration and antipyretics. They will document findings and interventions.
Step – 02 (Next 40 Minutes): Students will analyze follow-up lab data and clinical feedback. They will adjust care plans, modify antiemetic or nutritional strategies, and revise chemotherapy charts where indicated. Each group will present their structured management plan and justify decisions during peer interaction.
Assessment (Final 20 Minutes): Teacher will assess students using a structured checklist for procedural skills, documentation, and response adaptation. A practical viva will test understanding of chemotherapy regimens, supportive care rationale, and monitoring techniques. Simulated interactions and presentations will be evaluated for clarity, clinical reasoning, and teamwork.

Practical Training 31.2 : Simulated Supportive Care in Pediatric Acute Myeloid Leukemia (AML)

Total Duration of the Activities: 2 Hours
This session enables students to implement supportive care techniques for pediatric patients with Acute Myeloid Leukemia (AML) receiving chemotherapy. They will learn infection control, transfusion precautions, febrile neutropenia assessment, blood count monitoring, and simulate stem cell transplant care. Emphasis is placed on patient safety, early complication recognition, teamwork, and evidence-based supportive strategies, including nutritional and hydration interventions, to reduce chemotherapy-related morbidity.

Instructions to Students (First 20 Minutes): Teacher will introduce the simulated Acute Myeloid Leukemia (AML) case scenario and explain neutropenia-associated risks. Teacher will demonstrate daily CBC monitoring, signs of febrile neutropenia, and safe infection control practices including hand hygiene and isolation. Teacher will outline supportive care components such as mucosal hygiene, transfusion protocols, and hydration needs.
Students' Activities
Step – 01 (First 40 Minutes): Students will interpret simulated lab values (Complete blood count, Absolute Neutrophil Count), assess risk for febrile neutropenia, identify early signs of sepsis, and demonstrate appropriate infection control practices. Students will document supportive medications and explain the rationale behind prophylactic measures.
Step – 02 (Next 40 Minutes): Students will simulate supportive procedures such as stem cell transplant setup roles. They will plan dietary and hydration regimens for neutropenic care and engage in team-based discussion on chemotherapy complication management in Acute Myeloid Leukemia (AML).
Assessment (Final 20 Minutes): Teacher will assess students using a checklist for infection control demonstration and case handling accuracy. Practical viva will evaluate understanding of supportive care, complication risk, and teamwork in pediatric Acute Myeloid Leukemia (AML) management. Case-based discussion will be reviewed for clarity in monitoring and intervention strategies.

Practical Training 31.3 : Simulated Patient Protocol Development for Pediatric Lymphoma

Total Duration of the Activities: 2 Hours
This session allows students to manage a simulated pediatric lymphoma case by performing diagnostic interpretation, staging, and formulating a treatment strategy. Students will evaluate imaging and biopsy reports, differentiate between Hodgkin and Non-Hodgkin lymphoma, and design comprehensive care plans involving chemotherapy, radiotherapy, and follow-up. The activity reinforces histopathological confirmation, precision staging, and quality-of-life-focused long-term care in pediatric oncology.
Instructions to Students (First 20 Minutes): Teacher will orient students to pediatric lymphoma subtypes, explain staging systems, and review diagnostic components such as Positron Emission Tomography-Computed Tomography (PET-CT) and biopsy findings. Teacher will demonstrate how to formulate treatment plans based on risk category, tumor burden, and anticipated treatment response. Supportive care strategies and post-treatment monitoring will also be introduced.
Students' Activities
Step – 01 (First 40 Minutes): Students will analyze the provided imaging and biopsy reports from a simulated pediatric lymphoma case. They will identify the lymphoma subtype, determine the disease stage, and record diagnostic reasoning in a structured proforma.
Step – 02 (Next 40 Minutes):Students will create a treatment protocol incorporating appropriate chemotherapy cycles, radiotherapy indications (if any), and supportive interventions. They will prepare a care plan that includes management of side effects, psychosocial support, and long-term follow-up. Each group will present their plan and receive peer feedback.
Assessment (Final 20 Minutes):Teacher will assess students using a case-based checklist and practical viva focusing on staging accuracy, protocol planning, and reasoning. Simulated patient interactions and presentation clarity will be evaluated using a rubric that considers evidence-based decision-making, clinical logic, and patient-centered communication.

Practical Training 31.4 : Clinical Evaluation and Management Planning of Pediatric Bone and Soft Tissue Tumors

Total Duration of the Activities: 2 Hours
This session guides students in the diagnosis and management of pediatric soft tissue sarcomas and bone tumors. Students will evaluate clinical signs, interpret diagnostic tools like X-ray, MRI, and biopsy reports, and formulate comprehensive treatment plans. Emphasis will be placed on early detection, tumor staging, and interdisciplinary treatment involving chemotherapy, surgical options like limb-sparing procedures, and rehabilitation. Role-play activities will prepare students for effective patient and caregiver communication.
Instructions to Students (First 20 Minutes): Teacher will guide students through case files and review musculoskeletal tumor imaging. Teacher will demonstrate physical examination techniques relevant to tumor detection and explain diagnostic tools including biopsy and imaging interpretation. Teacher will outline treatment modalities and introduce rehabilitation goals.
Students' Activities
Step – 01 (First 40 Minutes): Students will evaluate assigned case scenarios, interpret diagnostic images and biopsy results, classify tumor type and stage, and develop a multidisciplinary treatment plan that includes chemotherapy and surgery.
Step – 02 (Next 40 Minutes): Students will participate in counseling simulations to explain diagnosis and management plans to simulated patients/parents. They will propose rehabilitation strategies, including physiotherapy schedules, limb-sparing approaches, and psychosocial support techniques.
Assessment (Final 20 Minutes): Teacher will evaluate students based on clinical case presentation, imaging interpretation, and management planning accuracy. Practical viva will assess understanding of tumor classification, staging, and multidisciplinary treatment. A checklist will be used during case simulation to evaluate student performance and communication skills.

Practical Training 31.5 : Case-Based Evaluation and Management Planning of Pediatric Neuroblastoma

Total Duration of the Activity: 2 Hours
This practical session guides students in evaluating pediatric neuroblastoma cases through case-based analysis, diagnostic interpretation, and simulation. Students will examine clinical histories, imaging (CT/MRI), and lab results including urine vanillylmandelic acid /homovanillic acid (VMA/HVA) levels. They will apply the International Neuroblastoma Staging System (INSS) and risk stratification guidelines to determine stage and treatment pathways. Students will simulate multidisciplinary team discussions to create comprehensive management plans, incorporating surgical, chemotherapeutic, and supportive components. A practical poster summarizing diagnosis, staging, and therapeutic flow will be developed collaboratively.
Instructions to Students (First 20 Minutes): Teacher will guide students through assigned neuroblastoma case files, focusing on clinical presentation, imaging findings (CT/MRI), and relevant tumor markers such as urine VMA/HVA levels. Teacher will explain the International Neuroblastoma Staging System (INSS), associated risk group classifications, and their impact on treatment decisions. Teacher will demonstrate how to correlate diagnostic findings with staging and introduce the framework for planning multimodal therapy, including surgery, chemotherapy, and radiotherapy.
Students' Activities
Step 01 – (First 40 Minutes): Students will analyze provided neuroblastoma cases, identify clinical features such as abdominal mass, systemic signs, and interpret imaging/lab reports. Students will classify tumor stage and assign appropriate risk group according to International Neuroblastoma Staging System (INSS).

Step 02 – (Next 40 Minutes): Students will participate in a simulated multidisciplinary team discussion to formulate individualized treatment plans. Students will design a practical poster detailing diagnostic flow, stage-wise management (surgery, chemo, radiotherapy), and supportive care strategies including psychosocial support.
Assessment Methods (Final 20 Minutes): Teacher will assess student understanding through Mini-CEX and practical viva focused on neuroblastoma staging and treatment planning. Teacher will evaluate posters and case presentations using a structured rubric for clinical reasoning, diagnostic accuracy, and clarity of management. Case-based documentation will be reviewed to ensure completeness and evidence-based application.

Practical Training 31.6 : Clinical Assessment and Management of Pediatric Metabolic Disorders

Total Duration of the Activities: 2 Hours
This session trains students to perform complete clinical case-taking and initial evaluation of children suspected to have inborn errors of metabolism. Students will identify history patterns like feeding intolerance, developmental delays, and familial disorders. They will perform physical examination for signs such as hypotonia, hepatomegaly, or peculiar odors. Based on findings, students will plan early management including laboratory testing, dietary interventions, and genetic counseling. Emphasis will be placed on early recognition and structured referral.
Instructions to Students (First 20 Minutes): Teacher will guide students through typical presentations of pediatric metabolic disorders. Teacher will demonstrate focused history-taking techniques and highlight red flags during examination. Teacher will simulate clinical cues such as hypotonia, lethargy, unusual odors, and explain initial investigations like tandem mass spectrometry.
Students' Activities
Step – 01 (First 40 Minutes): Students will perform a role-play scenario involving a child with suspected metabolic illness. They will take structured history, perform mock physical examination, and identify signs suggestive of metabolic dysfunction (e.g., failure to thrive, hepatomegaly, neurodevelopmental delay).
Step – 02 (Next 40 Minutes): Students will formulate a basic management plan that includes necessary investigations (e.g., serum ammonia, lactate, Tandem Mass Spectrometry), initial dietary advice, and referral for genetic counseling. They will present the case summary and justify their approach through peer discussion.
Assessment (Final 20 Minutes): Teacher will assess students based on a structured checklist evaluating completeness of history, examination accuracy, and appropriateness of the management plan. A practical viva will test understanding of metabolic warning signs, diagnostic priorities, and the ability to communicate findings and care plans to caregivers effectively.

Practical Training 31.7 : Clinical Simulation and Management Planning for Pediatric phenylketonuria (PKU) and maple syrup urine disease (MSUD).

Total Duration of the Activity: 2 Hours
This session involves simulated pediatric cases of phenylketonuria (PKU) and maple syrup urine disease (MSUD). Students will take history from caregivers, identify developmental delays, feeding difficulties, or characteristic urine odors, and suggest initial diagnostic approaches. They will interpret newborn screening and amino acid profiles to confirm diagnosis. Based on their findings, students will formulate dietary interventions, emergency care protocols, and long-term follow-up strategies for each disorder, with emphasis on parental education and metabolic crisis prevention.
Instructions to Students (First 20 Minutes): Teacher will explain the metabolic basis and pathophysiology of phenylketonuria (PKU) and maple syrup urine disease (MSUD).

Teacher will demonstrate key clinical signs, urine odor detection methods, and introduce lab interpretation for plasma amino acids. Teacher will guide students in understanding the importance of dietary management and early detection in reducing neurodevelopmental complications.
Students' Activities
Step – 01 (First 40 Minutes): Students will simulate history taking from a caregiver, identify red flags such as lethargy, vomiting, or developmental delay, and suggest relevant tests such as plasma amino acid analysis or newborn screening interpretation.
Step – 02 (Next 40 Minutes): Students will draft dietary plans (low-phenylalanine or branched-chain amino acid-restricted), formulate emergency care steps for metabolic decompensation, and simulate caregiver education about long-term dietary adherence and symptom monitoring.
Assessment (Final 20 Minutes): Teacher will assess the accuracy of case documentation, diagnostic reasoning, and clarity in caregiver communication. Mini-CEX will be used to evaluate clinical decision-making and patient interaction. A case-based viva will test understanding of metabolic disease management and emergency planning.

Practical Training 31.8 : Clinical Case Simulation and Management of Pediatric Gaucher Disease

Total Duration of the Activity: 2 Hours
This session trains students to clinically assess and manage Gaucher disease in pediatric patients through simulation-based learning. Students will identify hallmark signs such as hepatosplenomegaly, anemia, and skeletal changes. They will review enzyme assay results and radiological findings to confirm diagnosis. The session emphasizes development of a comprehensive management plan involving enzyme replacement therapy, supportive care, orthopedic and hematologic support, and genetic counseling. Students will work through a structured patient case and communicate their approach through role play and discussion.
Instructions to Students (First 20 Minutes): Teacher will explain the pathophysiology and clinical classification of Gaucher disease. Teacher will demonstrate how to recognize key features (abdominal distension, fatigue, bone deformity) and interpret diagnostic findings such as enzyme assays and radiographs. Teacher will provide guidance on designing a multidisciplinary care plan.
Students' Activities
Step 01 – (First 40 Minutes): Students will analyze a simulated patient case with suspected Gaucher disease. Students will perform history taking, identify signs such as hepatosplenomegaly and growth delay, and suggest appropriate investigations like beta-glucocerebrosidase levels and imaging.
Step 02 – (Next 40 Minutes): Students will draft a complete management plan that includes enzyme replacement therapy, supportive measures (transfusions, orthopedic aids), and caregiver counseling. Students will present their case report through a structured role-play simulating interaction with a multidisciplinary care team and the patient's family.
Assessment Methods (Final 20 Minutes): Teacher will assess the students using simulated patient interactions, evaluating clinical reasoning, accuracy in diagnostic interpretation, and communication of management plans. A practical viva will assess understanding of therapeutic strategies and patient education. Case documentation will be reviewed using a checklist to ensure completeness and individualized care planning.

Practical Training 31.9 : Clinical Simulation and Management Planning for Pediatric Wilson's Disease

Total Duration of the Activity: 2 Hours

This session involves case-based simulation for Wilson's Disease where students will take patient history, perform focused physical examination, and identify key features such as hepatic dysfunction, tremors, and psychiatric changes. Students will interpret diagnostic markers including serum ceruloplasmin, 24-hour urinary copper, and slit-lamp examination results. They will formulate a personalized treatment strategy focusing on chelation therapy, zinc supplementation, dietary copper restriction, and long-term follow-up.
Instructions to Students (First 20 Minutes): Teacher will review the pathophysiology of Wilson's Disease, including copper accumulation and organ toxicity. Teacher will demonstrate physical signs such as Kayser-Fleischer rings and tremors using visual aids. Teacher will explain the interpretation of relevant labs and slit-lamp findings and guide students in building a structured diagnostic and treatment approach.
Students' Activities
Step – 01 (40 Minutes): Students will evaluate a simulated case scenario and interpret diagnostic reports (ceruloplasmin, urinary copper, liver enzymes). Students will identify signs consistent with Wilson's Disease and record a case summary with diagnostic rationale.
Step – 02 (40 Minutes): Students will draft a personalized treatment plan including chelating agents (e.g., penicillamine), zinc therapy, and dietary modifications. Students will present the management plan in a mock case discussion and highlight long-term care protocols.
Assessment (Final 20 Minutes): Teacher will assess student performance based on their ability to analyze clinical and lab findings, justify diagnosis, and propose evidence-based treatment. A practical viva will evaluate understanding of chelation therapy and monitoring strategies. The written case summary will be reviewed for accuracy, structure, and clinical applicability.

Practical Training 31.10 : Clinical Recognition and Management of Glycogen Storage Disorders

Total Duration of the Activity: 2 Hours
This session introduces students to the clinical identification and diagnosis of glycogen storage disorders (GSDs) using simulated pediatric cases. Students will evaluate signs like hepatomegaly, muscle weakness, and hypoglycemia, and interpret lab investigations including glucose, lactate, uric acid, lipid profiles, and enzyme assays. Management plans involving dietary modifications such as uncooked cornstarch therapy and medical treatments will be developed and discussed.
Instructions to Students (First 20 Minutes): Teacher will explain the classification of Glycogen Storage Disorders (GSD) with focus on types I (Von Gierke) and II (Pompe). Teacher will guide students to observe clinical signs like hepatomegaly and muscle hypotonia using simulations. Teacher will demonstrate interpretation of relevant laboratory tests and discuss principles of dietary therapy and emergency care protocols in Glycogen Storage Disorders (GSD).
Students' Activities
Step – 01 (40 Minutes): Students will examine a provided simulated case scenario of suspected Glycogen Storage Disorders (GSD). Students will interpret clinical findings and analyze laboratory and genetic reports to classify the type of Glycogen Storage Disorders (GSD) and document associated organ involvement.
Step – 02 (40 Minutes): Students will design a personalized management plan including dietary modifications, medical therapy, and follow-up strategies. Students will present the case and receive structured feedback from peers and the teacher.
Assessment (Final 20 Minutes):Teacher will evaluate students through case-based discussions, checking for clinical reasoning and accurate lab interpretation. A practical viva will test knowledge of Glycogen Storage Disorders (GSD) classification, complication risk, and therapy protocols. Lab report interpretation will be used to assess students' understanding of metabolic profiles and diagnostic criteria.

Experiential learning Activity

Experiential-Learning 31.1 : Workshop on Cancer Biology and Genetic Mutations in Pediatric Leukemia

Total Duration of the Activities: 4 Hours
Instructions to Students (First 30 Minutes): Teacher will introduce the core concepts of leukemia pathology and the role of genetic mutations, with emphasis on the Philadelphia chromosome in Chronic Myeloid Leukemia (CML). Students will learn the steps of genetic testing including sampling, processing, and interpreting test results. The importance of mutation identification in selecting targeted therapies will be highlighted. Students will be guided to actively participate in the hands-on and case-based tasks that follow.
Students' Activities (Next 180 Minutes):
Step – 01 (60 Minutes): Students will participate in a hands-on simulation of genetic testing techniques used in pediatric leukemia, including Deoxyribonucleic acid extraction, polymerase chain reaction-based mutation detection, or use of provided genetic test reports. Key focus will be on understanding the molecular basis of the Philadelphia chromosome and common mutations relevant to personalized treatment.
Step – 02 (60 Minutes): Students will interpret simulated genetic reports, identifying key mutations. Each student will document clinical implications of the findings and map them to corresponding therapeutic options. Group discussions will be conducted to explain how specific therapies target the underlying mutation and how treatment protocols are personalized.
Step – 03 (60 Minutes): Students will engage in case-based discussions applying their knowledge to real-world pediatric leukemia scenarios. Each group will develop and present a personalized treatment plan based on genetic profiles, justifying their clinical decisions. Emphasis will be placed on the value of early molecular diagnosis in improving outcomes.
Assessment (Final 30 Minutes): Teacher will assess student performance using checklists focused on report interpretation accuracy, linkage to therapy, and engagement in case discussion. Peer Assessment will evaluate collaborative reasoning and contribution. A Trainer's Report will summarize individual and group strengths, along with suggested areas for improvement in molecular oncology understanding.

Experiential-Learning 31.2 : Simulated Role-Play: Multidisciplinary Care Planning in Pediatric Acute Myeloid Leukemia (AML)

Total Duration of the Activities 3 Hours
This simulation-based experiential activity involves role-play centered around managing a pediatric case of Acute Myeloid Leukemia (AML). Students will be assigned roles such as oncologist, pediatric nurse, pharmacist, and social worker. Working through the case, they will design a comprehensive care plan including chemotherapy, stem cell transplant planning, infection control, nutritional support, and psychosocial care. Emphasis is placed on communication, role clarity, and holistic management. Group reflection will reinforce the importance of coordinated team-based care.
Instructions to Students (First 30 Minutes) Teacher will brief students on the pediatric Acute Myeloid Leukemia (AML) case scenario, outlining treatment phases, transplant protocols, and supportive care aspects. Students will be assigned specific healthcare roles and provided with guidelines on their responsibilities. Focus will be on team coordination, respectful communication, and decision-making in a multidisciplinary context. Prepare to participate actively in role-play and collaborative care planning.

Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will perform a structured role-play, collaborating as a multidisciplinary team to present a unified treatment plan. The discussion will cover chemotherapy scheduling, infection prevention, nutritional care, emotional support strategies, and post-transplant monitoring. Each role must contribute its specific expertise.
Step – 02 (60 Minutes): Students will reflect on the coordination challenges encountered during the role-play. Each student will document their role's contribution, team communication techniques, and observed barriers. Students will then propose improvements for interdisciplinary functioning and suggest strategies for enhancing patient and caregiver engagement in long-term Acute Myeloid Leukemia (AML) care.
Assessment (Final 30 Minutes)Teacher will assess student performance using Practical Role Play rubrics, evaluating clarity, collaboration, and clinical understanding. Peer Assessment will capture interpersonal dynamics, while a Trainer's Report will document each group's coordination and care planning effectiveness.

Experiential-Learning 31.3 : Case-Based Workshop on Pediatric Hodgkin and Non-Hodgkin Lymphoma

Total Duration of the Activities 4 Hours
This interactive case study workshop introduces students to pediatric Hodgkin and Non-Hodgkin lymphoma. Through guided case reviews, students will analyze simulated clinical symptoms, biopsy results, and imaging findings. They will determine lymphoma types, assess staging, and formulate evidence-based treatment plans. Group discussions will emphasize long-term management, complications, psychosocial care, and recurrence monitoring. The session fosters multidisciplinary reasoning, teamwork, and patient-centered oncology practice.
Instructions to Students (First 30 Minutes) Teacher will explain lymphoma classification, clinical presentation, and diagnostic criteria. Students will receive simulated case files containing patient histories, biopsy summaries, and imaging results (CT/PET scans). Under guidance, students will analyze these resources to determine staging and understand treatment planning. Emphasis will be placed on evidence-based protocols, long-term follow-up, and compassionate patient care.
Students' Activities (Next 180 Minutes)
Step – 01 (60 Minutes): Students will work in small groups to interpret biopsy and imaging findings. Identify whether the case indicates Hodgkin or Non-Hodgkin lymphoma. Determine disease stage and justify diagnosis and staging based on established criteria.
Step – 02 (60 Minutes): Students will develop individualized treatment plans including chemotherapy and/or radiation strategies. Include monitoring timelines, side effect management, and supportive care measures. Focus will be on both acute care and long-term follow-up.
Step – 03 (60 Minutes): Participate in peer group discussions comparing Hodgkin vs. Non-Hodgkin lymphoma. Highlight diagnostic complexities, treatment outcomes, risk of relapse, and survivorship plans. Each group will prepare and present their case summary and proposed management plan with justification.
Assessment (Final 30 Minutes) Teacher will assess students through Case-Based Assessment and Class Presentations, evaluating clarity, diagnostic reasoning, and clinical relevance. Peer Assessment and Trainer's Report will be used to reflect team engagement, communication quality, and integration of patient-centered principles in oncology care.

Experiential-Learning 31.4 : Interactive Case Study on Brain Tumor Diagnosis and Management

Total Duration of the Activities: 3 Hours
Instructions to Students (First 30 Minutes): Teacher will introduce a simulated pediatric brain tumor case including clinical presentation, imaging findings (MRI/CT), and biopsy results. Students will be guided to review tumor classification, stage, and diagnostic criteria. In small groups, students will begin identifying roles of key disciplines—neurosurgery, oncology, radiation therapy, rehabilitation—and outline a preliminary management strategy. Emphasis will be placed on evidence-based planning and patient-centered care.
Students' Activities (Next 120 Minutes):
Step – 01 (60 Minutes): Students will work in assigned teams to develop a comprehensive treatment plan incorporating surgery, chemotherapy, and radiation. Diagnostic data must guide the rationale for modality choice. Each group will present their treatment strategy, explaining indications, expected outcomes, and anticipated complications.
Step – 02 (60 Minutes): Students will reflect on the challenges of multidisciplinary care, such as managing neurologic deficits, balancing side effects, and maintaining quality of life. Each group will document team coordination strategies, long-term follow-up protocols, and patient-family counseling plans. Reflections will highlight collaboration, ethical decision-making, and communication in pediatric neuro-oncology.
Assessment (Final 30 Minutes): Teacher will assess performance using Case-Based Assessment and Class Presentation rubrics, focusing on diagnostic reasoning, team coordination, and depth of treatment planning. Peer Assessment will be used to evaluate collaboration, role clarity, and group participation. A Trainer's Report will be compiled to highlight group insights and areas for clinical and communication improvement.

Experiential-Learning 31.5 : Role-Play Based Counseling for Pediatric Galactosemia Management

Total Duration of the Activities 3 Hours
This experiential session simulates real-world family counseling for pediatric galactosemia. Students participate in structured role-play exercises, alternating as healthcare providers and caregivers. They address dietary challenges, long-term management, and emotional support needs. The exercise fosters empathetic communication, peer feedback, and shared learning through active simulation of family-provider interactions. Discussions following the role-play reinforce key messages and collaborative strategies for dietary adherence and child development monitoring.
Instructions to Students (First 30 Minutes) Teacher will introduce the clinical context of galactosemia and distribute case scenarios. Students will form pairs or small groups. Review common dietary restrictions (e.g., lactose-free), family concerns, and the importance of long-term monitoring. Prepare to engage in role-play using empathetic, culturally sensitive, and clear communication strategies. Emphasis will be on collaborative discussion and active participation.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will participate in structured role-plays simulating counseling of families managing galactosemia. Each student will assume the role of healthcare provider and/or caregiver. Focus will be on delivering dietary guidance, explaining monitoring plans, and providing emotional support. Emphasize realistic challenges and responses.
Step – 02 (60 Minutes): Students will reflect on their role-play performance and participate in peer-assisted discussions. Document communication strategies used, challenges in discussing lifelong dietary management, and methods for enhancing compliance. Engage in group analysis of effective versus ineffective counseling techniques and how they influence family understanding and adherence.

Assessment (Final 30 Minutes) Teacher will use Trainer's Report and Peer Assessment tools to evaluate each student's performance. Practical Role Play scores will assess communication effectiveness, accuracy of dietary advice, and patient-family engagement. Students will also self-assess and provide feedback to peers, reinforcing reflective learning and practical skill enhancement.

Experiential-Learning 31.6 : Jigsaw Group Research and Peer Teaching on Tay-Sachs Disease

Total Duration of the Activities 3 Hours
In a jigsaw learning approach, students are divided into expert groups, each focusing on a specific aspect of Tay-Sachs disease: (1) Genetic Etiology, (2) Clinical Features, (3) Diagnosis, (4) Management, and (5) Family and Psychosocial Support. Each group researches their subtopic and prepares a short presentation. After expert discussions, students reorganize into mixed groups where each member teaches their area. This fosters interdisciplinary comprehension and highlights the clinical and communicative responsibilities in managing a pediatric genetic disorder.
Instructions to Students (First 30 Minutes) Teacher will divide students into expert groups and assign each group a specific subtopic related to Tay-Sachs disease. Students will review literature and digital resources provided, extract key points, and prepare a concise presentation. Emphasis should be placed on clinical application and caregiver counseling. Each group must ensure clarity, accuracy, and peer engagement.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will present their group's subtopic (e.g., genetics, symptoms, diagnosis, treatment, or family support) to mixed peer groups. Each student must teach their topic clearly and answer peer questions. Students will actively listen and take notes to integrate the full spectrum of disease understanding.
Step – 02 (60 Minutes): Students will reflect on the shared learning and discuss how interdisciplinary understanding enhances clinical and empathetic care. Students will collaboratively document key learning outcomes and note the importance of teamwork, clear communication, and culturally sensitive family support in genetic counseling.
Assessment (Final 30 Minutes) Teacher will assess the clarity, depth, and delivery of student presentations. Peer assessments will reflect group collaboration and communication. Practical viva and a short reflective summary will evaluate individual understanding of Tay-Sachs disease and its holistic management.

Experiential-Learning 31.7 : Simulation-Based Interdisciplinary Care Planning for Pediatric Mitochondrial Disorders

Total Duration of the Activities 3 Hours
Students will engage in a simulation-based clinical scenario involving a pediatric patient with mitochondrial disorder. The session replicates an interdisciplinary consultation, incorporating roles such as geneticist, dietitian, and physiotherapist. Students will collaboratively assess symptoms, identify diagnostic barriers, and plan a holistic care pathway. The activity highlights personalized therapy, coordination across specialties, and the importance of communication in managing rare metabolic disorders.
Instructions to Students (First 30 Minutes) Teacher will introduce the case scenario and assign interdisciplinary roles. Students will review the patient's clinical summary and identify diagnostic and therapeutic complexities. The team will collaboratively outline their approach, integrating dietary, genetic, and rehabilitative perspectives while maintaining a patient- and family-centered care model.

Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will work in teams to draft a comprehensive care plan that includes genetic consultation, nutritional modification, and physiotherapy. The plan should demonstrate how multidisciplinary input is coordinated to address mitochondrial dysfunction. Each team will deliver a class presentation justifying their decisions.
Step – 02 (60 Minutes): Students will participate in a reflective discussion to evaluate the effectiveness of interdisciplinary teamwork in managing chronic pediatric conditions. Each student will prepare a summary report focusing on coordination strategies, role clarity, communication flow, and measurable outcome goals.
Assessment (Final 30 Minutes) Teacher will assess students based on their presentations, peer-reviewed team collaboration, and summary reports. Evaluation tools include case-based assessment for reasoning clarity, quiz to reinforce conceptual knowledge, and practical viva for interdisciplinary application of care strategies.

Experiential-Learning 31.8 : Nutritional Planning for Pediatric Glycogen Storage Disorders

Total Duration of the Activities 3 Hours
Students will participate in a hands-on workshop designed to develop skills in crafting customized dietary plans for pediatric patients with various types of glycogen storage disorders. Through case scenarios and faculty guidance, they will assess nutritional needs, manage carbohydrate intake, and propose structured feeding plans, including night time care. Emphasis will be placed on managing hypoglycemia, improving growth, and ensuring metabolic stability through precise dietary interventions.
Instructions to Students (First 30 Minutes) Teacher will brief students on the classification and metabolic basis of glycogen storage disorders. Students will be instructed to identify specific nutritional challenges, including fasting intolerance and need for complex carbohydrates. Instructions will cover dietary regulation strategies, timing of meals, and supplementation methods.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will work in groups to design sample diet plans tailored to specific types of pediatric Glycogen Storage Disorders (GSD) cases. Plans must address meal intervals, types of carbohydrates, emergency glucose sources, and strategies for night-time feeding. Each group will present and justify their plan.
Step – 02 (60 Minutes): Students will reflect on the impact of nutritional management on disease progression and quality of life. Each student will document a structured reflection addressing how timely, accurate dietary planning supports growth and metabolic health in children with Glycogen Storage Disorders (GSD).
Assessment (Final 30 Minutes) Teacher will assess students through a checklist-based review of their dietary plans, a brief practical viva on dietary rationale, and evaluation of their reflection write-up. Emphasis will be on clinical relevance, precision in dietary formulation, and understanding of metabolic consequences.

Modular Assessment

Assessment method	**Hour**
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 6C. Section A - 25 Marks - ABQ/ LAQ/SAQ &	4

Section – B. This 25-mark assessment integrates online quiz, word puzzle, and viva voce to evaluate knowledge of pediatric hematology, oncology, and metabolic disorders. It emphasizes conceptual recall, diagnostic reasoning, treatment planning, and terminology familiarity. The format ensures active engagement, clinical relevance, and alignment with competency-based medical education objectives.
Instructions to Students : You will complete three tasks: (1) an online quiz with MCQs and short-answer questions, (2) a word puzzle featuring terms from oncology and metabolic disorders, and (3) a viva based on clinical scenarios. Interpret symptoms, propose treatments, and communicate clearly. No books, notes, or mobile devices are permitted.
Instructions to Teachers: Prepare an objective online quiz covering essential pediatric hematology, oncology, and metabolism topics. Create a word puzzle featuring clinically relevant terms. Conduct structured viva sessions using case scenarios. Assess students' reasoning, diagnosis, and clarity of communication. Use a standard rubric for consistency, fairness, and constructive feedback during viva interaction.
Mark Distribution : The 25 marks are divided across three components. Puzzle activity—classification, recall, and term matching—is allotted 8 marks. Symptom analysis and diagnosis reasoning carry 6 marks. Therapeutic planning and prevention strategies receive 6 marks, and communication clarity during viva interaction is evaluated for the remaining 5 marks.
(Or)
Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).

Module 32 : Ear, Nose and Throat and Dental Disorders and Ophthalmology

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

Describe the etiology, diagnosis, and treatment of common ENT disorders.
Identify pediatric ocular conditions and outline their management strategies.
Describe emergency and chronic ENT and ophthalmic conditions in children.
Discuss common pediatric dental diseases and their preventive care.
Demonstrate knowledge of congenital and traumatic disorders affecting teeth and eyes.
Apply clinical reasoning for integrated management of ENT, ocular, and dental issues.

M 32 Unit 1 ENT Disorders I

32.1.1 Acute Otitis Media – Middle ear infection, ear pain, fever, tympanic membrane changes, viral or bacterial etiology, antibiotic therapy, analgesia, recurrence prevention.
32.1.2 Chronic Otitis Media – Persistent ear discharge, tympanic membrane perforation, hearing loss, otoscopic findings, tympanostomy tubes, surgical correction, long-term follow-up.
32.1.3 Sinusitis – Acute and chronic forms, nasal congestion, facial pain, purulent discharge, sinus radiography, decongestants, antibiotics, functional endoscopic sinus surgery.
32.1.4 Tonsillitis – Sore throat, fever, tonsillar enlargement, streptococcal pharyngitis, antibiotic therapy, recurrent infections, tonsillectomy indications, postoperative care.
32.1.5 Adenoid Hypertrophy – Nasal obstruction, snoring, mouth breathing, recurrent infections, lateral neck radiograph, adenoidectomy criteria, surgical management.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Perform otoscopic exam and plan treatment for pediatric otitis media.	2	Practical Training 32.1	PSY-GUD	Shows-how	CBL,SIM,D-BED
CO3,CO5,CO6	Perform nasal and sinus examinations to assess pediatric sinusitis confidently.	2	Practical Training 32.2	PSY-GUD	Shows-how	CBL,D-BED,SIM
CO3,CO5,CO6	Perform Ear, Nose, and Throat (ENT) exam to differentiate tonsillitis and adenoid hypertrophy.	2	Practical Training 32.3	PSY-GUD	Shows-how	SIM,D-BED,CBL
CO2,CO5,CO7	Describe the causes and management of Ear, Nose, and Throat (ENT) disorders like acute otitis media and chronic otitis media.	1	Lecture	CK	Knows-how	L&GD,L&PPT ,L
CO1,CO4,CO8	Demonstrate empathy and apply antibiotic stewardship in Ear, Nose, and Throat care	3	Experiential-Learning 32.1	AFT-RES	Does	PAL,RP,DIS,CBL
CO2,CO4,CO7	Perform nasal exam and analyze sinus images for diagnosis	4	Experiential-Learning 32.	AFT-VAL	Does	W,SIM,D-M,TBL

			2			
CO2,CO7	Describe the causes,clinical presentation and management of sinusitis,tonsillitis and adenoid hypertrophy.	1	Lecture	CK	Knows-how	L&GD,L

M 32 Unit 2 ENT Disorders II

32.2.1 Epistaxis – Nasal bleeding, trauma, dry mucosa, systemic causes, anterior vs. posterior bleeds, pressure techniques, nasal packing, cauterization, recurrence prevention.
32.2.2 Laryngomalacia – Inspiratory stridor, supraglottic collapse, feeding difficulties, positional changes, flexible laryngoscopy, monitoring strategies, supraglottoplasty indications.
32.2.3 Foreign Body Aspiration – Sudden cough, choking, respiratory distress, localized wheeze, Heimlich maneuver, chest X-ray, bronchoscopy retrieval, post-removal care.
32.2.4 Mastoiditis – Postauricular swelling, fever, otalgia, displaced pinna, CT imaging, intravenous antibiotics, mastoidectomy, intracranial complication prevention.
32.2.5 Hearing Loss – Conductive and sensorineural types, delayed speech, hearing screening, tympanometry, audiometry, hearing aids, cochlear implants, early rehabilitation.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Describe about the causes,clinical presentation and management of conductive and sensorineural hearing loss.	1	Lecture	CC	Knows-how	L&PPT ,L,L&GD
CO3,CO5,CO6	Perform nasal exam and demonstrate first-aid for pediatric epistaxis.	2	Practical Training 32.4	PSY-GUD	Shows-how	D-BED,CBL,SIM,IBL
CO3,CO5,CO6	Demonstrate clinical assessment of stridor and laryngomalacia severity.	2	Practical Training 32.5	PSY-MEC	Shows-how	SIM,RLE,CBL,D-BED
CO2,CO5,CO7	Perform guided clinical assessment of mastoiditis and propose management strategies.	2	Practical	PSY-	Shows-	SIM,D-

			Training 32.6	MEC	how	BED,CBL
CO2,CO3,CO8	Demonstrate airway clearance techniques and respond to emergencies	3	Experiential-Learning 32.3	AFT-CHR	Does	SIM,RP,D-M,ML
CO2,CO3,CO8	Analyze diagnostic reports and apply treatment strategies for mastoiditis	3	Experiential-Learning 32.4	CAP	Does	PL,SIM,CBL,D
CO2,CO7	Describe about the causes,clinical presentation and management of epistaxis and laryngomalacia.	1	Lecture	CK	Knows-how	L,L&PPT
CO2,CO7	Describe about the causes,clinical presentation and management of mastoiditis and foreign body aspiration	1	Lecture	CK	Knows-how	L&PPT,L

M 32 Unit 3 Pediatric Ophthalmology Disorders

32.3.1 Common Ocular Infections and Inflammations – Bacterial, viral, allergic conjunctivitis, eye hygiene, transmission control, orbital cellulitis, proptosis, fever, intravenous antibiotics, surgical drainage.
32.3.2 Vision Development and Misalignment – Strabismus, esotropia, exotropia, amblyopia, cover test, corrective lenses, patching, atropine penalization, surgical correction.
32.3.3 Congenital and Developmental Conditions – Congenital cataracts, leukocoria, early surgical intervention, retinopathy of prematurity, screening schedules, laser photocoagulation.
32.3.4 Serious Ocular Diseases – Retinoblastoma, intraocular tumor, red reflex absence, enucleation, chemotherapy, glaucoma, elevated intraocular pressure, medical and surgical treatment.
32.3.5 Inflammatory and Traumatic Conditions – Optic neuritis, visual loss, pain on eye movement, corticosteroids, corneal abrasion, epithelial defect, fluorescein staining, topical antibiotics.

References: 39,40,43,44,64,67,104

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

CO2,CO5,CO7	Describe the causes,clinical presentation and management of amblyopia	1	Lecture	CK	Knows-how	L,L&PPT
CO2,CO5,CO7	Perform visual acuity and alignment tests confidently in pediatric patients.	2	Practical Training 32.7	PSY-MEC	Shows-how	D-M,CBL,PL
CO3,CO4,CO8	Demonstrate guided management techniques for types of pediatric conjunctivitis.	2	Practical Training 32.8	PSY-SET	Shows-how	D,SIM,CBL
CO1,CO5,CO8	Demonstrate eye hygiene techniques and value infection control	3	Experiential-Learning 32.5	PSY-GUD	Does	W,D,PL
CO2,CO3,CO8	Perform vision screening and apply alignment test results	3	Experiential-Learning 32.6	PSY-GUD	Does	SIM,PL,D
CO2,CO5,CO7	Describe the causes,clinical presentation and management of conjunctivitis and strabismus	1	Lecture	CK	Knows-how	L&GD,L
CO2,CO5,CO7	Describe the causes,clinical presentation and management of retinopathy of prematurity and congenital cataracts.	1	Lecture	CK	Knows-how	L,CBL,L_VC
CO1,CO2,CO5	Discuss the causes,clinical presentation and management of retinoblastoma,glaucoma,optic neuritis,cellulitis and corneal abarasion	1	Lecture	CS	Knows-how	CBL,L&PPT ,DIS

M 32 Unit 4 Pediatric Dental Disorders

32.4.1 Dental Caries and Early Childhood Caries – Tooth decay, plaque accumulation, sugar exposure, fluoride application, preventive sealants, oral hygiene education, early dental visits, restorative care.
32.4.2 Gingivitis, Periodontitis, and Enamel Hypoplasia – Gum inflammation, bleeding gums, alveolar bone loss, enamel defects, fluoride varnish, professional cleaning, cosmetic restorations, oral care reinforcement.
32.4.3 Dental Trauma and Avulsed Teeth – Chipped teeth, tooth avulsion, emergency first aid, reimplantation, dental splinting, radiographic evaluation, pulp vitality testing, follow-up protocols.

32.4.4 Malocclusion, Tooth Eruption Disorders, and Bruxism – Crowding, delayed or early eruption, nocturnal grinding, orthodontic evaluation, braces, occlusal splints, behavioral modification.
32.4.5 Tooth Abscess, Pulpitis, and Other Disorders – Toothache, periapical infection, root canal therapy, extractions, hyperdontia, ankylosis, fluorosis, tetracycline staining, cosmetic corrections.

References: 39,40,43,44,64,67,104

3A	3B	3C	3D	3E	3F	3G
CO2,CO5,CO7	Discuss application of common pediatric dental conditions	1	Lecture	CAP	Knows-how	L&GD,L &PPT ,L
CO2,CO5,CO7	Demonstrate guided oral examination and fluoride application in pediatric patients.	2	Practical Training 32.9	PSY-ORG	Shows-how	CBL,SIM ,RLE,D,D-M
CO3,CO4,CO8	Perform oral examination and plan care for gum/enamel defects.	2	Practical Training 32.10	PSY-MEC	Shows-how	D-BED,CBL,PAL, SIM
CO3,CO4,CO8	Perform a hands-on hospital focused on teaching effective oral hygiene practices and preventive care strategies for children.	4	Experiential-Learning 32.7	AFT-CHR	Does	PL,RP,W,D
CO3,CO4,CO7	Perform a video simulation that focuses on applying fluoride treatments and other preventive measures	3	Experiential-Learning 32.8	PSY-GUD	Does	SIM,D,CBL,PL

Practical Training Activity

Practical Training 32.1 : Clinical Assessment and Management of Pediatric Otitis Media

Total Duration of the Activities: 2 Hours
This session enables students to clinically assess and manage pediatric otitis media using otoscopic simulation and real or bedside demonstrations. Students will learn to identify signs of Acute Otitis Media (AOM) such as bulging or erythematous tympanic membrane, and compare with Chronic Otitis Media (COM) features such as

tympanic membrane perforation or hearing loss. Students will simulate otoscopic findings, interpret case scenarios, and formulate appropriate management strategies including antibiotic use, pain control, follow-up scheduling, and surgical referral when needed.
Instructions to Students (First 20 Minutes): Teacher will explain the anatomy of the middle ear and pathophysiology of AOM and COM. Teacher will demonstrate otoscopic techniques using simulation models, highlighting features such as membrane bulging, scarring, or effusion. Teacher will guide students to differentiate acute from chronic cases and introduce standard treatment protocols including medical and surgical options.
Students' Activities
Step – 01 (First 40 Minutes): Students will perform otoscopic examinations on simulation models or mannequins. They will identify clinical features of Acute Otitis Media (AOM) and Chronic Otitis Media (COM), record findings using structured proforma, and interpret signs from provided clinical case scenarios.
Step – 02 (Next 40 Minutes): Students will formulate and present individualized treatment plans for assigned Acute Otitis Media (AOM) and Chronic Otitis Media (COM) cases. They will justify antibiotic selection, propose analgesic options, describe indications for tympanostomy, and outline parental guidance for home care and follow-up.
Assessment (Final 20 Minutes): Teacher will use a DOPS checklist to assess otoscopy skills and accuracy in clinical documentation. Case-based assessment will evaluate diagnostic reasoning and treatment planning. A practical viva will be conducted to assess the student's knowledge of disease progression, complications, and clinical decision-making.

Practical Training 32.2 : Clinical Assessment and Management of Acute and Chronic Sinusitis in Children

Total Duration of the Activities: 2 Hours
This clinical practical focuses on identifying and managing pediatric sinusitis through simulation and bedside assessment. Students will differentiate acute sinusitis (nasal congestion, purulent discharge, facial pain) from chronic presentations (postnasal drip, nasal obstruction, fatigue). They will perform anterior rhinoscopy, sinus palpation, and transillumination. Diagnostic interpretation and clinical judgment will be applied to create individualized treatment plans using decongestants, antibiotics, and referrals when necessary. Parent education and prevention strategies will be included.
Instructions to Students (First 20 Minutes): Teacher will review paranasal sinus anatomy and the clinical presentation of sinusitis. Teacher will demonstrate physical examination techniques (palpation, transillumination, anterior rhinoscopy) and explain how to distinguish acute from chronic sinusitis. Teacher will provide guidance on developing appropriate treatment strategies and indications for referral.
Students' Activities
Step – 01 (First 40 Minutes): Students will practice sinus palpation and anterior rhinoscopy on models or peers. They will document findings such as tenderness, discharge, and congestion. They will identify distinguishing features of acute vs. chronic sinusitis based on symptom profiles.
Step – 02 (Next 40 Minutes): Students will evaluate clinical case scenarios of both acute and chronic sinusitis. They will formulate individualized treatment plans incorporating pharmacologic therapy and Ear, Nose, and Throat (ENT) referral when needed. Students will simulate counseling for caregivers, focusing on symptom monitoring and follow-up care.
Assessment (Final 20 Minutes): Teacher will use DOPS checklists to evaluate physical examination techniques. Case-based questions will assess diagnostic clarity and appropriateness of treatment. A practical viva will test the student's understanding of sinusitis classification, escalation criteria, and patient-centered management.

Practical Training 32.3 : Clinical Examination and Management of Pediatric Tonsillitis and Adenoid Hypertrophy

Total Duration of the Activities: 2 Hours

This clinical practical enables students to examine pediatric patients with suspected tonsillitis and adenoid hypertrophy. Students will learn to differentiate viral and bacterial tonsillitis and recognize signs of adenoid hypertrophy such as nasal obstruction and mouth breathing. The session includes physical examination techniques, review of diagnostic imaging, and treatment planning. Emphasis is placed on individualized care, understanding indications for surgical intervention, and appropriate medical management.

Instructions to Students (First 20 Minutes): Teacher will explain oropharyngeal and nasopharyngeal anatomy and demonstrate oral cavity and nasal airflow examinations. Teacher will highlight differences between viral and bacterial tonsillitis and guide students through surgical criteria for tonsillectomy and adenoidectomy.

Students' Activities

Step – 01 (First 40 Minutes): Students will conduct oral and nasal examinations on simulated patients or peers. They will grade tonsillar hypertrophy, identify features like exudates or erythema, and gather clinical history of symptoms including snoring and mouth breathing.

Step – 02 (Next 40 Minutes): Students will review case scenarios to classify tonsillitis as viral or bacterial. They will design individualized treatment plans, including supportive care or referral for imaging and surgical consultation. Students will interpret lateral neck X-rays or nasoendoscopy images to assess adenoid size.

Assessment (Final 20 Minutes): Teacher will use DOPS to evaluate Ear, Nose, and Throat (ENT) examination technique. Case-based assessments will check diagnostic reasoning and treatment planning. A practical viva will test the ability to differentiate viral vs. bacterial tonsillitis and justify surgical decisions for adenoid hypertrophy.

Practical Training 32.4 : Clinical Evaluation and First-Line Management of Pediatric Epistaxis

Total Duration of the Activities: 2 Hours

This practical session trains students to assess and manage pediatric epistaxis through anterior rhinoscopy, nasal compression, and simulation of anterior nasal packing. Students will learn to localize common bleeding sites such as Little's area and practice first-aid interventions. Using inquiry-based scenarios, they will differentiate primary and secondary causes, simulate use of vasoconstrictors or cautery, and draft escalation and referral protocols for recurrent or systemic epistaxis.

Instructions to Students (First 20 Minutes): Teacher will guide students through a step-by-step assessment of nasal bleeding in children. Teacher will demonstrate anterior rhinoscopy, correct nasal compression technique, anterior nasal packing, and application of topical vasoconstrictors. Teacher will review pediatric causes of epistaxis and highlight red flag signs that warrant referral or cautery.

Students' Activities

Step – 01 (First 40 Minutes): Students will perform anterior rhinoscopy on a model or peer to inspect nasal mucosa and localize bleeding. They will practice nasal compression and simulate nasal packing using standard materials, observing correct technique and patient safety.

Step – 02 (Next 40 Minutes): Students will analyze patient scenarios to identify epistaxis etiology (e.g., trauma, dryness, coagulopathy). They will propose escalation steps such as cautery or Ear, Nose, and Throat (ENT) referral and prepare a protocol for managing recurrent epistaxis, integrating preventive strategies.

Assessment (Final 20 Minutes): Teacher will assess student performance through DOPS for nasal inspection, compression technique, and packing simulation. A practical viva will evaluate students' ability to identify causes, apply first-aid correctly, and determine when specialist intervention is required.

Practical Training 32.5 : Clinical Assessment and Management Planning of Pediatric Laryngomalacia

Total Duration of the Activities: 2 Hours
This session trains students to recognize and assess laryngomalacia in infants by identifying hallmark features such as inspiratory stridor, feeding difficulties, and growth delays. Using simulated patients and bedside demonstrations, students will perform focused respiratory assessments and evaluate symptom severity. Emphasis is placed on distinguishing cases that require conservative management from those warranting surgical intervention. Students will document findings and propose individualized treatment or monitoring plans.
Instructions to Students (First 20 Minutes): Teacher will demonstrate the assessment of stridor in infants and guide students in recognizing laryngomalacia-related symptoms. Teacher will explain the differences between mild and severe cases, the role of feeding and growth tracking, and criteria for referral to surgical care. Teacher will model how to document clinical findings clearly.
Students' Activities
Step – 01 (First 40 Minutes): Students will perform a focused examination on simulated patients presenting with stridor. They will document timing of stridor, feeding challenges, weight changes, and respiratory effort using structured forms.
Step – 02 (Next 40 Minutes):Students will compare two case scenarios of laryngomalacia. They will classify severity based on clinical features, outline conservative vs. surgical indications, and draft concise management notes highlighting follow-up and red flag signs.
Assessment (Final 20 Minutes): Teacher will assess students using observation checklists during simulated respiratory assessments. A practical viva will evaluate the students' ability to classify laryngomalacia severity, justify treatment plans, and document findings effectively.

Practical Training 32.6 : Clinical Assessment and Management of Pediatric Mastoiditis

Total Duration of the Activities: 2 Hours
This session introduces students to the identification and evaluation of pediatric mastoiditis, focusing on recognizing warning signs that differentiate it from otitis media. Through bedside demonstrations, simulation, and structured case analysis, students will practice postauricular examinations, interpret findings, and develop treatment plans that include antibiotic therapy and indications for surgical referral. Emphasis is placed on clinical decision-making and early intervention to prevent complications.
Instructions to Students (First 20 Minutes): Teacher will review mastoid anatomy and demonstrate postauricular assessment techniques, including identification of swelling, tenderness, and auricle displacement. Teacher will explain the difference between acute otitis media and mastoiditis, review systemic signs of severity, and guide interpretation of relevant clinical findings for timely diagnosis and treatment.
Students' Activities
Step – 01 (First 40 Minutes): Students will perform a clinical examination on simulated or peer models, including postauricular palpation and otoscopic evaluation. They will document signs such as erythema, tenderness, swelling, and systemic symptoms like fever, noting features suggestive of mastoiditis.
Step – 02 (Next 40 Minutes): Students will review clinical case scenarios with varied presentations of mastoiditis. They will prepare a case summary, propose an evidence-based management plan (medical and surgical), and present it to peers for collaborative discussion and faculty feedback.
Assessment (Final 20 Minutes):Teacher will assess students using Mini-CEX during examination of simulated patients, evaluating technique and accuracy. Case

presentations will be reviewed for diagnostic reasoning, communication clarity, and relevance of management plans. A short practical viva will test understanding of mastoiditis complications and surgical referral indicators.

Practical Training 32.7 : Visual Acuity Testing and Eye Alignment Assessment in Children

Total Duration of the Activities: 2 Hours
This session trains students to assess pediatric visual acuity using developmentally appropriate tools and detect ocular alignment abnormalities through clinical screening techniques. Students will perform visual acuity testing with Snellen, Lea, or Tumbling E charts and simulate cover-uncover and Hirschberg tests for strabismus detection. Emphasis is placed on proper technique, interpretation of findings, documentation, and appropriate referral for conditions such as amblyopia or strabismus.
Instructions to Students (First 20 Minutes): Teacher will demonstrate the use of age-specific visual acuity charts and explain testing procedures including distance, lighting, and child engagement strategies. Teacher will guide the cover-uncover and Hirschberg tests for strabismus detection and discuss normal vs. abnormal alignment during fixation. Students will observe and prepare for hands-on application.
Students' Activities
Step – 01 (First 40 Minutes): Students will conduct visual acuity tests on simulated or peer models using Snellen, Lea, or Tumbling E charts. They will assess each eye separately and together, record results accurately (e.g., 6/6, 6/12), and ensure child cooperation during the testing process.
Step – 02 (Next 40 Minutes): Students will perform cover-uncover and Hirschberg tests to evaluate eye alignment. They will identify signs of strabismus such as esotropia or exotropia, document findings, and suggest next steps including specialist referral where necessary. Peer feedback will support accuracy improvement.
Assessment (Final 20 Minutes):Teacher will assess each student using a structured checklist for technique and documentation during vision and alignment testing. A practical viva will test the student's ability to differentiate strabismus types, interpret findings, and recognize referral indications. Scenario-based assessment will reinforce decision-making in pediatric visual care.

Practical Training 32.8 : Management and Hygiene Protocols in Pediatric Conjunctivitis

Total Duration of the Activities: 2 Hours
This session focuses on the clinical differentiation and first-line management of bacterial, viral, and allergic conjunctivitis in pediatric patients. Students will practice the administration of topical medications using simulation models and engage in role plays to educate caregivers on hygiene and infection control. Emphasis is placed on recognizing the clinical features of various conjunctivitis types, reinforcing infection prevention strategies, and improving caregiver communication for effective home management.
Instructions to Students (First 20 Minutes): Teacher will demonstrate the clinical signs of conjunctivitis and the proper technique for instilling eye drops and ointments. Teacher will explain how to differentiate between bacterial, viral, and allergic types and model caregiver communication, including hygiene measures like hand washing and avoiding shared linens.
Students' Activities
Step – 01 (First 40 Minutes): Students will simulate the administration of eye drops and ointments on a model. They will document each step performed, focusing on

infection control, medication accuracy, and patient comfort. Students will also rehearse advising parents on cleaning the eye and preventing the spread of infection.
Step – 02 (Next 40 Minutes): Students will perform a role play where one acts as the clinician and the other as the caregiver. They will explain the type of conjunctivitis, recommended treatment, and home care. Students will prepare a short instruction card listing essential dos and don'ts for conjunctivitis care and prevention.
Assessment (Final 20 Minutes): Teacher will assess each student using a checklist for proper eye drop and ointment administration, accuracy of hygiene guidance, and clarity during role play. A practical viva will evaluate the student's ability to differentiate conjunctivitis types, reason through treatment choices, and communicate effectively with caregivers.

Practical Training 32.9 : Clinical Assessment and Preventive Management of Pediatric Dental Caries

Total Duration of the Activities: 2 Hours
This session enables students to assess pediatric patients for early dental caries and apply fluoride preventively. Students will perform oral examinations using models or simulated patients, document dental findings, and apply fluoride using gel or varnish methods. Communication skills will be practiced via caregiver education role plays on brushing, diet, and fluoride benefits. The goal is to integrate diagnostic skills with preventive strategies and improve dental hygiene counseling competency.
Instructions to Students (First 20 Minutes): Teacher will demonstrate pediatric oral examination and fluoride application on a model. Teacher will explain caries detection signs, proper fluoride delivery methods, and how to educate parents about brushing techniques and dietary modifications. Teacher will provide examples of child-friendly communication and use of visual tools.
Students' Activities
Step – 01 (First 40 Minutes): Students will perform oral examinations on pediatric models or simulated patients. They will identify caries, plaque, or enamel changes, document findings in a structured format, and practice fluoride varnish application step-by-step.
Step – 02 (Next 40 Minutes): Students will participate in role-play sessions with simulated caregivers, explaining preventive strategies for dental caries including oral hygiene and fluoride use. They will develop and share an educational leaflet to reinforce home-based practices like brushing and sugar intake reduction.
Assessment (Final 20 Minutes): Teacher will use a checklist to assess fluoride application skills and oral examination accuracy. A role-play evaluation and practical viva will test students' clinical communication, ability to explain preventive measures, and accuracy in documentation.

Practical Training 32.10 : Clinical Evaluation and Management of Pediatric Gingivitis and Enamel Hypoplasia

Total Duration of the Activities: 2 Hours
This session trains students to conduct detailed oral examinations of pediatric patients or models to detect gingivitis and enamel hypoplasia. Through simulation and peer interaction, they will assess gingival health (redness, bleeding, plaque) and enamel abnormalities (pits, grooves, discoloration). Students will propose treatment plans including fluoride therapy, hygiene instruction, and cosmetic options. Emphasis is placed on preventive education and effective communication with caregivers.
Instructions to Students (First 20 Minutes): Teacher will demonstrate systematic gingival and enamel surface examination using models or bedside instruction. Teacher will guide identification of signs like swelling, plaque, or hypoplastic defects, and explain methods of fluoride application and restoration options. Teacher will model communication strategies for caregiver counseling.

Students' Activities
Step – 01 (First 40 Minutes): Students will examine assigned pediatric models or peers, noting inflammation, plaque, and enamel surface defects. They will use plaque disclosing agents where available, record findings with diagrams or photographs, and classify observations using standardized documentation.
Step – 02 (Next 40 Minutes): Students will draft and present treatment plans involving fluoride application, hygiene education, and cosmetic correction. They will work in pairs to develop a simple oral health guide for caregivers, addressing brushing techniques, diet, and recall visits for prevention.
Assessment (Final 20 Minutes): Teacher will assess oral examination performance using a checklist, review documentation accuracy, and evaluate the logic and appropriateness of the proposed treatment plans. Mini-CEX and scenario-based questions will test clinical reasoning, communication skills, and knowledge of prevention strategies.

Experiential learning Activity

Experiential-Learning 32.1 : Role-Play on Caregiver Counseling in Pediatric Ear, Nose, and Throat Infections

Total Duration of the Activities 3 Hours
Students will participate in structured role-play sessions simulating caregiver counseling for pediatric Ear, Nose, and Throat conditions like acute and chronic otitis media. They will explain treatment plans including antibiotic use, pain relief, and infection prevention strategies. Through simulated interactions, students will practice evidence-based communication and patient education. This activity emphasizes empathy, clarity, and responsible prescribing practices in common ENT conditions.
Instructions to Students (First 30 Minutes) Teacher will provide a briefing on otitis media types, communication skills, and antibiotic stewardship. Students will be assigned roles and guided on how to explain treatment plans, side effects, and preventive alternatives. Focus will be placed on empathic interaction, clarity, and evidence-based advice during caregiver counseling.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will participate in structured role-plays, alternating roles as pediatric care providers and caregivers. They will practice explaining symptoms, rationale for antibiotic or non-antibiotic use, and methods for infection control. Challenges in communication and emotional responses will be documented.
Step – 02 (60 Minutes): Students will reflect on their interactions, identify areas for improvement in communication and content delivery, and collaboratively summarize key caregiver education strategies. They will compile a list of best practices for responsible antibiotic use and caregiver support.
Assessment (Final 30 Minutes) Teacher will assess student communication using Practical Role Play checklists focusing on empathy, clarity, and clinical relevance. Peer Assessment will evaluate engagement and responsiveness during interaction. A Trainer's Report will summarize group performance and offer feedback for improving caregiver counseling in ENT conditions.

Experiential-Learning 32.2 : Model-Based Demonstration and Simulation for Sinusitis Diagnosis

Total Duration of the Activities 4 Hours
Students will participate in a demonstration-based workshop followed by simulation practice for diagnosing sinusitis. The session includes hands-on training in nasal examination using speculums and otoscopes on models, followed by interpretation of sinus imaging (X-rays/CT). Students will integrate physical examination findings with

radiologic markers such as mucosal thickening and sinus opacification. The focus is on developing diagnostic competency and clinical reasoning.
Instructions to Students (First 30 Minutes) Teacher will demonstrate nasal examination techniques using models and diagnostic instruments. Students will be introduced to sinusitis symptoms and radiologic signs. Emphasis will be placed on examination accuracy, diagnostic correlation, and structured interpretation.
Students' Activities (Next 180 Minutes)
Step – 01 (60 Minutes): Students will practice nasal examinations using nasal speculums and otoscopes on models under teacher supervision. Findings will be documented using structured observation sheets.
Step – 02 (60 Minutes): Students will analyze sinus X-rays and CT scan samples provided. Focus will be on identifying sinusitis-related changes like opacification, fluid levels, or mucosal swelling.
Step – 03 (60 Minutes): Students will synthesize examination and imaging data into diagnostic reports. Teams will propose treatment pathways and present findings for review and peer discussion.
Assessment (Final 30 Minutes) Teacher will use DOPS to evaluate technical performance and observation accuracy. Practical Performance checklists will assess examination technique and image interpretation. Peer feedback will support reflection on clinical reasoning and collaborative diagnosis.

Experiential-Learning 32.3 : Simulated Emergency Response for Pediatric Foreign Body Aspiration

Total Duration of the Activities 3 Hours
This hands-on simulation workshop trains students to recognize and manage pediatric foreign body aspiration emergencies. Under supervision, students will perform life-saving techniques such as the Heimlich maneuver, back blows, and chest thrusts using mannequins for infants and older children. The session reinforces anatomical understanding, emergency protocols, and timely intervention. Role-play scenarios simulate real-time clinical crises, encouraging teamwork and immediate decision-making.
Instructions to Students (First 30 Minutes) Teacher will demonstrate emergency airway clearance techniques on pediatric models, explaining age-specific interventions and highlighting clinical signs of foreign body aspiration. Students will be briefed on simulation scenarios and safety protocols. Prepare to perform and reflect on the technique application in practical settings.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will perform emergency airway clearance procedures on infant and child mannequins, documenting each step and expected outcomes. Focus will be on Heimlich maneuver, back blows, and chest thrusts.
Step – 02 (60 Minutes): Students will participate in a simulated patient role-play, identifying signs of airway obstruction and coordinating as a response team. Critical decisions and actions will be documented and reviewed during peer feedback.
Assessment (Final 30 Minutes): Teacher will evaluate student proficiency using DOPS during hands-on activities. Practical Role Play will assess the application of skills in simulated emergencies. Simulated Patient Scenarios will be used to assess decision-making, teamwork, and communication in real-time pediatric crisis management.

Experiential-Learning 32.4 : Case-Based Clinical Decision-Making in Pediatric Mastoiditis

Total Duration of the Activities 3 Hours

In this hands-on case-based session, students will assess simulated pediatric mastoiditis cases, interpreting clinical symptoms, otoscopic findings, and CT imaging. Under teacher guidance, each group will draft a comprehensive treatment plan, incorporating antibiotics, surgical options, and follow-up care. Emphasis is placed on timely intervention and preventing complications like hearing loss or intracranial spread. Students will conclude with peer presentations to compare management approaches and refine clinical reasoning skills.
Instructions to Students (First 30 Minutes) Teacher will introduce pediatric mastoiditis case scenarios and explain typical clinical presentations, diagnostic markers, and imaging features. Students will be guided through the stepwise approach to diagnosis and management. Groups will be assigned cases and instructed to analyze diagnostic evidence to build rational treatment strategies.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will assess assigned case data including clinical signs and imaging results. Each group will formulate a treatment plan, choosing between conservative or surgical management based on the case severity. Documentation will include diagnostic rationale, treatment sequence, and expected outcomes.
Step – 02 (60 Minutes): Each group will present their diagnostic impressions and treatment plans. Students will participate in peer critique, comparing approaches and refining strategies through guided discussion. Emphasis will be placed on clinical justification, early recognition, and interdisciplinary considerations.
Assessment (Final 30 Minutes) Teacher will assess students through Case-Based Assessment and Class Presentation focusing on diagnostic accuracy, clarity of rationale, and treatment planning. Practical Performance will be evaluated based on engagement, application of guidelines, and integration of peer feedback.

Experiential-Learning 32.5 : Hygiene and Infection Control Practices in Pediatric Ocular Infections

Total Duration of the Activities 3 Hours
This hands-on workshop introduces students to hygiene practices and infection prevention strategies specific to pediatric ocular infections such as conjunctivitis. Faculty will demonstrate hand hygiene, safe eye drop administration, and periorbital cleaning techniques. Students will practice under supervision using simulation models or peer-based role-play. The session also emphasizes isolation protocols, caregiver education, and community awareness, aiming to reduce the spread of infections and promote long-term ocular health.
Instructions to Students (First 30 Minutes) Teacher will demonstrate eye hygiene practices including proper handwashing, eye drop application, and periorbital cleaning using simulation tools. Instructions will include infection control steps, caregiver counseling techniques, and hygiene education strategies. Students must attentively observe and prepare for skill application and reflection.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice hand hygiene, eye drop instillation, and periorbital cleaning on models or peers under supervision. Each student will document steps taken and highlight infection control measures applied.
Step – 02 (60 Minutes): Students will develop and document a caregiver education guide on hygiene practices for conjunctivitis. They will reflect on practical barriers to hygiene adherence and propose solutions for community-level health promotion.
Assessment (Final 30 Minutes): Teacher will assess hygiene skill execution through DOPS, review recorded observations during Practical Performance, and evaluate communication and caregiver instruction through Practical Role Play. Students will be scored on accuracy, infection control adherence, and educational clarity.

Experiential-Learning 32.6 : Practical Vision Screening and Strabismus Detection in Pediatrics

Total Duration of the Activities 3 Hours
This hands-on practical session equips students with pediatric vision screening skills, including visual acuity testing, cover-uncover tests, and ocular alignment assessments. Faculty demonstrate techniques using Snellen or Lea Symbols charts, occluders, and penlights. Students work in pairs to practice under supervision, simulating real-world vision screening. The goal is to enhance diagnostic accuracy for conditions like Strabismus and promote timely intervention to prevent amblyopia.
Instructions to Students (First 30 Minutes) Teacher will demonstrate pediatric vision screening techniques including visual acuity testing, cover-uncover tests, and alignment assessment. Students will be instructed on correct tool usage, patient positioning, and interpretation of normal and abnormal findings. Emphasis will be placed on precision and early identification of Strabismus.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice vision screening techniques on peers or models. Activities include testing visual acuity, performing cover-uncover and Hirschberg tests, and recording findings systematically.
Step – 02 (60 Minutes): Students will interpret the recorded results, identify signs suggestive of Strabismus, and simulate caregiver communication. Students will propose initial management strategies and reflect on early referral protocols.
Assessment (Final 30 Minutes) Teacher will assess student performance using DOPS for skill accuracy and technique execution. Practical Performance will be evaluated during tool handling and documentation. Practical Role Play will assess student clarity and empathy in communicating screening results and follow-up advice.

Experiential-Learning 32.7 : Workshop and Role-Play: Pediatric Oral Hygiene and Preventive Dental Care

Total Duration of the Activities 4 Hours
This hands-on hospital-based workshop trains students in effective oral hygiene practices and pediatric dental care strategies. Through demonstrations and peer-based role plays, students will practice brushing and flossing techniques for various pediatric age groups. They will simulate caregiver education, focusing on oral hygiene, dietary guidance, and the importance of regular dental checkups. The session promotes early intervention, family-centered communication, and preventive care skills in diverse social settings.
Instructions to Students (First 30 Minutes) Teacher will demonstrate proper brushing and flossing techniques using pediatric dental models. Students will be introduced to educational tools like charts and visual aids. Instructions will be given for peer-based role-plays simulating caregiver counseling. Focus on tailoring preventive advice to age and background.
Students' Activities (Next 180 Minutes)
Step – 01 (60 Minutes): Students will practice brushing and flossing techniques using age-appropriate dental models under supervision. Each student will demonstrate both techniques and receive feedback.
Step – 02 (60 Minutes): Students will participate in role-play sessions simulating caregiver counseling. They will educate peers on proper oral hygiene, pediatric diet modifications, and dental check-up importance using models and posters.
Step – 03 (60 Minutes): Students will reflect on their demonstration and communication effectiveness. Each will document strategies used to engage caregivers and identify

barriers based on socioeconomic diversity.
Assessment (Final 30 Minutes) Teacher will assess each student using DOPS for brushing and flossing techniques. Practical Performance will evaluate clarity and accuracy during demonstrations. Practical Role Play will assess communication, empathy, and educational content delivered during simulated caregiver counseling.

Experiential-Learning 32.8 : Simulation-Based Training on Fluoride Application and Dental Caries Prevention

Total Duration of the Activities 3 Hours
This simulation-based session introduces students to fluoride application techniques and holistic strategies for preventing dental caries in children. Using dental models, students will practice applying fluoride varnish and gel under supervision. Case-based discussions will reinforce knowledge of dietary risk factors, oral hygiene routines, and the importance of early caries detection. Emphasis is placed on clinical skills, preventive education, and caregiver communication for long-term oral health promotion.
Instructions to Students (First 30 Minutes) Teacher will demonstrate fluoride application methods on dental models, explaining correct technique, indications, contraindications, and patient safety measures. A short discussion will cover the impact of diet and hygiene on dental caries and effective caregiver counseling techniques.
Students' Activities (Next 120 Minutes)
Step – 01 (60 Minutes): Students will practice applying fluoride varnish and gels on simulation dummies or dental models. Each student will document the steps followed, ensuring attention to technique, hygiene, and pediatric safety.
Step – 02 (60 Minutes): Students will engage in case-based group discussions to identify dietary and hygiene-related causes of early childhood caries. Students will draft educational strategies for caregiver counseling and early intervention planning.
Assessment (Final 30 Minutes) Teacher will assess fluoride application using DOPS to evaluate technique and safety. Practical Role Play will assess communication with caregivers regarding caries prevention. Peer Assessment will be used to evaluate collaborative discussions and educational counseling strategies.

Modular Assessment

Assessment method	**Hour**
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 6C. Section – A This 25-mark OSCE-based assessment evaluates students' clinical skills in pediatric ENT disorders, including otitis media, tonsillitis, sinusitis, adenoid hypertrophy, and airway issues. Students will demonstrate structured case-taking, ENT examination interpretation, symptom differentiation, and initial management planning across key conditions using simulated pediatric scenarios and standard ENT examination checklists. Instructions to Students: You will rotate through OSCE stations focused on pediatric ENT conditions. At each station, perform structured history-taking, identify clinical signs or findings, interpret diagnostic clues, and propose initial management steps. Use safe, hygienic practices and communicate clearly. Reference materials and electronic devices are not allowed during the session. Instructions to Teachers: Design OSCE stations simulating common ENT conditions such as acute otitis media, tonsillitis, and hearing loss. Include case history forms, examination tools, or models. Use standardized checklists to evaluate diagnostic reasoning, symptom analysis, communication, and clinical	4

planning. Ensure uniform timing, fair evaluation, and supportive feedback to all students. Mark Distribution: The assessment carries 25 marks divided into four parts: Station 1: Structured History and Symptom Recognition – 7 marks, Station 2: ENT Diagnostic Interpretation – 6 marks, Station 3: Therapeutic and Management Plan – 6 marks, Station 4: Communication and Preventive Advice (Simulated) – 6 marks. & Section – B. This 25-mark practical assessment evaluates students' clinical reasoning, diagnosis, and management of pediatric eye and dental conditions. Using models, scenarios, and visuals, students will assess infections, misalignments, trauma, and developmental anomalies. They will identify symptoms, select therapeutic options, and explain prevention strategies for ophthalmic and oral disorders in children. Instructions to Students : Students will engage with simulated patient models and case scenarios representing common pediatric eye and dental conditions. Perform structured symptom analysis, identify the diagnosis, select appropriate management strategies, and explain the condition and care plan clearly. Mobile phones and textbooks are not permitted during any part of the assessment. Instructions to Teachers : Create practical scenarios involving pediatric ophthalmic and dental conditions using patient models, photographs, or dental mannequins. Include stations for history interpretation, visual/dental examination, and communication. Evaluate students with a structured checklist focusing on diagnostic accuracy, problem-solving, and explanation clarity. Allow uniform time and provide constructive feedback after assessment. Mark Distribution : The total 25 marks are divided as follows: Case Interpretation and Problem Identification – 7 marks, Therapeutic Decision-Making (Medicines or Procedures) – 6 marks, Model-Based Identification or Simulation Task – 6 marks, Preventive Strategy Explanation and Communication Clarity – 6 marks. Assessors will use structured rubrics for scoring. (Or) Any practical in converted form can be taken for assessment 25 (Marks) & any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks).	

Table 4 : Practical Training Activity

(*Refer table 3 of similar activity number)		
Practical No*	**Practical name**	**Hours**

1.1	Understanding and Managing Conditions under Sikappu Noi	3
1.2	Compilation and Clinical Correlation of 64 Types of Sikappu Noi	2
1.3	Clinical Diagnosis and Management of Pooppu and Pirali	3
1.4	Clinical Identification and Siddha Management of Therai and Alakai Noi	2
1.5	Clinical Diagnosis and Management of Etchi, Melecchi, and Etchil Roakam	3
1.6	Diagnosis and Management of Kuligan and Azhukural Disorders	2
1.7	Clinical Classification and Siddha Management of Thoodam Disorders	3
1.8	Classification and Siddha Management of Sooriya Noi and Santhira Noi	2
2.1	Clinical Classification, Diagnosis, and Management of Vilaachuzhiyan	3
2.2	Documentation and Siddha-Based Management of Vilaachuzhiyan	2
2.3	Clinical Differentiation and Siddha Management of Pediatric Irumal and Muppirai	3
2.4	Documentation and Management of Pediatric Irumal and Muppirai	2
2.5	Structured Documentation and Siddha Clinical Insights on Kaasam, Kaayam, and Ilaippu Noi	3
2.6	Clinical Presentation and Siddha Therapeutics for Kaasam, Kaayam, and Ilaippu	2
2.7	Documentation and Diagnostic Interpretation of Kanai Noi Classifications	3
2.8	Clinical Diagnosis and Siddha Management of Pediatric Kanai Disorders	2
3.1	Clinical Diagnosis and Siddha Management of Kudaletram, Herniation, and Colic in Children	3
3.2	Clinical Diagnosis and Siddha-Based Communication for Theerai, Vikkal, and Thaagam	2
3.3	Siddha Diagnosis and Management of Vayitru Valigal Subtypes in Pediatric Cases	3
3.4	Clinical Identification and Siddha Management of Pediatric Moola Noigal, Pavuthiram and Moola Rogam	2

3.5	Clinical Diagnosis and Siddha Management of Kazhicchal and Related Diarrheal Disorders	3
3.6	Clinical Classification and Siddha Management of Vaanthi and Sarthal	2
3.7	Clinical Diagnosis and Treatment Planning for Pediatric Maantha Noigal	3
3.8	Clinical Interpretation and Communication of Maantha Noigal through Charts, Enactments, and Puzzles	2
4.1	Clinical Examination, Diagnosis, and Management of Valippu Noi and Suzhali	3
4.2	Clinical Classification and Siddha Management of Pediatric Vali Noi, Puraveechu, and Nadukkan	3
4.3	Clinical Diagnosis and Siddha Management of Pediatric Soolai and Moorchai	3
4.4	Clinical Recognition and Siddha Management of Baalar Mayakkam in Children	2
4.5	Clinical Diagnosis and Siddha Management of Pediatric Sura Vaatham and Akkini Vaatham	3
4.6	Siddha Emergency Management of Mel Moochu Vaatham and Athisaara Vaatham in Children	3
4.7	Clinical Diagnosis and Siddha Management of Baala Vaatham in Children	3
5.1	Siddha Clinical Diagnosis and Management of Pediatric Paandu Noi and Sobai	3
5.2	Clinical Diagnosis and Management of Pediatric Baalar Manjal Noi and Kaamalai	3
5.3	Clinical Diagnosis and Siddha Management of Pediatric Ullu Rogam	2
5.4	Clinical Assessment, Differentiation, and Siddha Management of Karal Sura Rogam and Karal Rogam	3
5.5	Clinical Diagnosis and Management of Baala Pitham Subtypes in Children	3
5.6	Comparative Clinical Assessment and Siddha Management of Baala Pitham with Edema and Ascites	3
5.7	Clinical Diagnosis and Siddha Management of Pediatric Singu Noi	3
6.1	Clinical Diagnosis and Siddha Management of Baala Megam	2
6.2	Clinical Diagnosis and Therapeutic Planning for Pediatric Anda Vaatham	2

6.3	Clinical Assessment and Management of Pediatric Urinary Disorders	2
6.4	Emergency Siddha Management and Parental Counseling for Pediatric Sanni and Sanni Vali	3
6.5	Clinical Examination and Siddha Management of Oozhi Noi in Pediatric Practice	2
6.6	Clinical Classification and Siddha Management of Pediatric Baalar Suram and Nava Suram	2
6.7	Clinical Assessment and Siddha Management of Kudora Suram, Kulir Suram, and Kulircchi	2
6.8	Clinical Recognition and Siddha Management of Mannan (Measles) in Children	2
6.9	Clinical Assessment and Management of Pediatric Ammai Noigal and Complications	3
7.1	Clinical Diagnosis and Siddha Management of Pediatric Vitharpam	3
7.2	Differentiation and Siddha-Based Management of Pediatric Vaarppu and Vitharpam	2
7.3	Clinical Diagnosis and Siddha Examination of Pediatric Parangi, Ponni, and Pilavai	3
7.4	Siddha Management of Parangi Noi, Ponni, and Pilavai – An Interactive Clinical Approach	2
7.5	Clinical Diagnosis and Siddha Management of Bala Karappaan and Sengamaari Karappaan	3
7.6	Case-Based Diagnostic Discussion and Management of Pediatric Karappaan Manifestations	2
7.7	Clinical Examination and Siddha Management of Kapaala Kuttam and Pediatric Kuttam	3
7.8	Siddha Treatment Strategies for Kapaala Kuttam and Mahaakuttam	2
8.1	Clinical Identification and Siddha Management of Vippuruthi	3
8.2	Clinical Assessment and Siddha Management of Vishapaakam	2
8.3	Clinical Diagnosis and Siddha Management of Sira Rogam in Pediatric Patients	3
8.4	Clinical Recognition and Siddha Management of Pediatric Amirtharogam	2
8.5	Clinical Identification and Siddha-Based Management of Pediatric Paadha Rogam	3

8.6	Clinical Examination and Siddha Management of Paatha Silerpanam	2
8.7	Diagnosis and Siddha Management of Pediatric Kudarpuzhu and Kirumi Disorders	3
8.8	Clinical Observation and Siddha Management of Masari, Keeri, and Irai Noi	2
9.1	Application of Basic Varmam Techniques in Pediatrics	3
9.2	Identification and Localization of Key Varmam Points in Pediatric Care	3
9.3	Exploring Classical Varmam Texts and Their Influence on Pediatric Care	2
9.4	Demonstration of Saram and Vaasi Ottam	2
9.5	Identification and Mapping of Nadi Pathways in Pediatrics	2
9.6	Application of Vayukkal Movements for Energy Flow Regulation	2
9.7	Therapeutic Applications – Varmam Techniques for Autism, Cerebral Palsy, and Sensory-Motor Disorders	3
9.8	Integration of Siddha Medicines with Varmam Therapy for Holistic Pediatric Care	3
10.1	Application of Internal Varmam Points and Compression Techniques in Pediatrics	3
10.2	Adhara Varmam Zones – Vital Organ Support and Systemic Harmony in Pediatrics	3
10.3	Regional Application of Varmam Points in Pediatric Care	3
10.4	Ethical Guidelines, Clinical Protocols, and Integrated Models in Pediatric Varmam Practice	3
10.5	Varmam Application for Pediatric Gastrointestinal and Respiratory Symptom Relief	2
10.6	Varmam Applications for Pediatric Behavioral Disorders	3
10.7	Varmam Applications for Pediatric Neurological Disorders and Symptoms	3
11.1	Application of Kattu and Thokkanam in Pediatric Care	2
11.2	Thermal Therapies: Ottradam, Vedhu, and Suttigai in Pediatric Care	2

11.3	Application of Nasiyam and Kalikkam in Pediatric Siddha Therapy	2
11.4	Application of Local Blood Letting (Attai Vidal, Keeral) in Pediatrics	2
11.5	Immobilization Techniques (Kombu Kattal) in Pediatric Orthopedic Care	2
11.6	Siddha External Therapies for Kyphosis and Scoliosis in Pediatrics	2
11.7	Siddha External Therapy for Pediatric Valippu (Seizure Disorders)	2
11.8	Siddha External Therapy for Pediatric Colic and Abdominal Pain	2
11.9	Siddha External Therapies for Wound Healing and Abscesses in Pediatrics	2
11.10	Siddha External Therapies for Pediatric Dermatological Conditions	2
12.1	Critical Reading and Group Discussion on Siddha External Therapies for Mental Retardation	2
12.2	Application of Thappalam for Sensory Integration and Behavioral Support in Children	2
12.3	Workshop on Splinting and Immobilization Techniques in Pediatric Orthopedic Care	2
12.4	Siddha External Therapies for Pediatric Ear, Nose, and Throat (ENT) Conditions: Clinical Simulation and Case-Based Practice	2
12.5	Scientific Interpretation of Pugai, Vedhu, and Nebulization in Pediatric Respiratory Care	2
12.6	Scientific Interpretation of Ottradam, Vedhu, and Suttigai in Pediatric Thermal Therapy	2
12.7	Recent Advances in Bloodletting (Attai Vidal, Keeral) for Pediatric Inflammatory Conditions	2
12.8	Case-Based Analysis of Siddha External Therapies in Pediatric Neurological Disorders	2
12.9	Documentation and Interpretation of Clinical Trials on Siddha External Therapies in Pediatrics	2
12.10	Evaluation of Research Studies on Pediatric Siddha Therapies	2
13.1	Special Education and Early Intervention in Developmentally Delayed Children	2
13.2	Social Skills Training for Special Children: Interaction, Empathy, and Cooperation	2

13.3	Therapeutic and Behavioral Interventions for Pediatric Mental Health	2
13.4	Physical Therapy (PT) Techniques for Functional Improvement in Special Children	2
13.5	Occupational Therapy (OT) Interventions for Functional Independence in Special Children	2
13.6	Speech and Language Therapy for Pediatric Speech Disorders – Bedside Demonstration	2
13.7	Bedside Demonstration of Therapeutic Strategies for Pediatric Hearing and Visual Sensory Impairments	2
13.8	Contemporary Medical and Surgical Management of Cerebral Palsy: A Blended Learning Approach	2
13.9	Multidisciplinary Approaches to Pediatric Hemiparesis, Hemiplegia, and Quadriplegia	2
13.10	Integrated Management of Pediatric Epilepsy and Seizure Disorders	2
14.1	Preparation of Siddha Clinical Management Protocol for Autism Spectrum Disorder (ASD)	2
14.2	Siddha Clinical Management Protocol Preparation for Attention Deficit Hyperactivity Disorder (ADHD)	2
14.3	Applied Learning Strategies for Managing Pediatric Learning Disabilities	2
14.4	Integrated Management Strategies for Pediatric Intellectual Disability	2
14.5	Integrated Behavioral Management of Oppositional Defiant and Conduct Disorders	2
14.6	Designing Child-Friendly Siddha Pediatric Hospital Infrastructure	2
14.7	Simulated Multidisciplinary Recruitment and Care Planning in Siddha Pediatric Setup	2
14.8	Simulating Licensing and NABH Accreditation Procedures for a Siddha Pediatric Hospital	2
14.9	Multisystem Therapeutic Planning and Debate on Pediatric Obsessive-Compulsive Disorder (OCD)	2
14.10	Integrated Management and Innovation in Pediatric Neuropsychiatric Disorders	2
15.1	Philosophical and Therapeutic Applications of Pediatric Siddhar Yogam	2
15.2	Siddhar Yogic Postures for Enhancing Pediatric Physical Growth and Development	2

15.3	Siddha Yogam Practices for Enhancing Pediatric Mental Health and Cognitive Development	2
15.4	Siddha-Aligned Breathing Techniques for Enhancing Pediatric Respiratory Health	2
15.5	Siddhar Yogic Practices for Pediatric Digestive Health and Gut Wellness	2
15.6	Siddhar Yogam for Positive Behavioral Development and Therapeutic Management	2
15.7	Pediatric Siddhar Yoga for Emotional Regulation, Mindfulness, and Social-Emotional Learning	2
15.8	Age-Appropriate Siddhar Yogic Practices for Pediatric Development	2
15.9	Student Symposium on Yoga as a Preventive Tool in Pediatric Health	2
15.10	Age-Appropriate Siddhar Yogic Practices for Pediatric Development and Academic Support	2
16.1	Therapeutic Siddhar Yoga Practices for Autism Spectrum Disorder (ASD)	2
16.2	Therapeutic Siddhar Yogam for Managing Attention-Deficit Hyperactivity Disorder (ADHD) in Children	2
16.3	Siddhar Yogam for Enhancing Speech and Cognitive Function in Children	2
16.4	Siddhar Yogam for Supporting Cardiovascular Health in Pediatric Care	2
16.5	Therapeutic Siddhar Yogam and Breathing Practices for Pediatric Respiratory Disorders	2
16.6	Therapeutic Siddhar Yogam for Pediatric Digestive and Gastrointestinal Health	2
16.7	Siddhar Yogam for Enhancing Immunity in Children	2
16.8	Siddhar Yogam for Pain Management in Pediatric Care	2
16.9	Scientific Symposium on Evidence-Based Siddha Yoga Practices in Pediatric Care	2
16.10	Therapeutic Siddhar Yogam for Stress, Anxiety, and Mind-Body Integration in Children	2
17.1	Understanding Gut Microbiota and Immune Health in Infants through Siddha-Based Practices	2
17.2	Exploring the Role of Early Nutrition in Long-Term Pediatric Health	2

17.3	Siddha-Based Energy and Nutritional Planning for Pediatric Growth Stages	2
17.4	Siddha-Based Nutritional Planning for Preterm Infants: Weight Gain and Developmental Support	2
17.5	Siddha-Based Use of Minerals and Animal Products in Pediatric Nutrition	2
17.6	Siddha-Recommended Functional Foods in Pediatric Care for Immunity and Holistic Nourishment	2
17.7	Siddha Green Leaves in Pediatric Nutrition for Immunity and Growth Enhancement	2
17.8	Siddha Dietary Management for Pediatric Respiratory and Digestive Disorders	2
17.9	Siddha Dietary Strategies for Pediatric Skin Conditions and Neurological Disorders	2
17.10	Siddha Dietary Management in Pediatric Infectious Diseases	2
18.1	Documentation and Assignment Submission on Siddha-Based Pediatric Nutrition and Immunity	2
18.2	Siddha-Based Pediatric Management of Nutritional Deficiencies	2
18.3	Pediatric Clinical Evaluation and Anthropometry for Nutritional Assessment	2
18.4	Scientific Integration of Siddha Nutritional Concepts from Classical Texts	2
18.5	Pathiyam and Therapeutic Dietary Restrictions in Siddha Pediatric Practice	2
18.6	Hydration Practices and Water Quality in Pediatric Siddha Care	2
18.7	Dietary Adjuncts and Thegigal-Based Customization in Pediatric Siddha Nutrition	2
18.8	Managing Pediatric Malnutrition – Siddha Nutritional Restoration and Documentation	2
18.9	Case Studies on Siddha and Traditional Nutrition in Pediatric Digestive Disorders	2
18.10	Apply Siddha dietary principles to manage respiratory conditions in pediatric clinical cases.	2
19.1	Siddha-Based Preventive Care Protocols for Newborns and Infants	2
19.2	Debate and Critical Appraisal of Siddha Immunity and Vaccination Integration	2

19.3	Mini-Symposium on Siddha Preventive Pediatric Practices	3
19.4	Simulation of Siddha Pediatric Health Camp	3
19.5	Symposium on Siddha Pediatric Nutrition and Preventive Strategies	3
19.6	Siddha Diagnostic Tools for Pediatric Growth and Malnutrition Monitoring	2
19.7	Formulation and Use of Siddha Immunity-Boosting Medicines in Pediatrics	3
19.8	Documentation of Siddha Immuno-Enhancing Medicinal Plants for Pediatric Use	2
20.1	Preparation and Scientific Appraisal of Siddha Kaappu for Pediatric Prophylaxis	2
20.2	Symposium on Public Health Legislations and Pediatric Siddha Care	3
20.3	Symposium on Child Health Rights, Legal Frameworks, and Siddha Public Health	3
20.4	Community Awareness Program on Preventive Siddha Pediatric Care	3
20.5	Community Education and Policy Integration for Siddha Pediatric Care	3
20.6	Integrating Siddha Practices with National and Global Pediatric Health Programs	3
20.7	Simulated Proposal Development for Siddha Integration in Maternal and Child Health Programs	3
21.1	Understanding Pharmacology and Its Pediatric Relevance	2
21.2	Understanding Pediatric Pharmacokinetics and Drug Response Variation	2
21.3	Symposium on Fundamentals of Pediatric Pharmacology	2
21.4	Symposium on Herbomineral and Animal Products in Pediatric Siddha Care	2
21.5	Focused Recitation and Tutorial on System-Based Pediatric Pharmacology	2
21.6	System-Based Pediatric Pharmacology: Clinical and Research Perspectives	2
21.7	Preparation of Siddha Pediatric Medicines for Common Ailments	2

21.8	Debate and Discussion on Siddha Medicines for Pediatric Developmental Disorders	2
21.9	Preparation of Herbal, Mineral, and Animal Products in Siddha Pediatrics	2
21.10	Clinical Presentation of Case Studies on Herbomineral Formulations in Pediatric Care	2
22.1	Siddha Formulations for Pediatric Systemic Diseases and Neurological Disorders	3
22.2	Workshop on Safety and Dosing Guidelines for Internal Siddha Formulations	2
22.3	Preparation of External Formulations for Pediatric Skin, Eye, Ear, and Musculoskeletal Disorders	2
22.4	Symposium on Safety and Efficacy of External Formulations for Pediatric Care	2
22.5	Integrative Approaches with Modern Medicine: A Journal Club and Team-Based Learning Session	3
22.6	Recent Advances in Pediatric Treatment Plans and Dosing Guidelines	3
22.7	Symposium on Good Manufacturing Practices (GMP) and Quality Control in Pediatric Formulations	3
22.8	Raw Material Selection and Processing for Pediatric Formulations	2
23.1	Establishing a Pediatric Siddha Hospital: Legal Compliance and Layout Design	3
23.2	Staffing and Technology Plan for a Pediatric Siddha Hospital	2
23.3	Simulated Audit on Hospital Safety and Legal Compliance in Siddha Pediatrics	2
23.4	Review and Simulation of National Accreditation Board for Hospitals & Healthcare Providers (NABH) Accreditation for Siddha Pediatric Hospitals	3
23.5	Business Plan and Financial Planning for a Siddha Pediatric Hospital	2
23.6	Strategic Marketing, Outreach, and Pricing for Siddha Pediatric Hospitals	3
23.7	Designing Patient Care Pathways and Staff Performance Systems in Siddha Pediatric Hospitals	2
23.8	Strategic Planning and Service Expansion in Siddha Pediatric Hospitals	3
24.1	Designing a Pediatric Siddha Pharmaceutical Unit and Market-Driven Product Development	3

24.2	Regulatory Compliance for Siddha Pediatric Pharmaceuticals	2
24.3	Subsidy Access and Regulatory Compliance for Siddha Pediatric Products	3
24.4	Product Approval, Compliance, and Securing Government Contracts for Pediatric Siddha Products	2
24.5	Market Research and Export Compliance for Siddha Pediatric Products	3
24.6	Export Strategy and Digital Marketing for Siddha Pediatric Pharmaceuticals	2
24.7	Designing Telemedicine and Health Tracking Tools for Siddha Pediatric Care	2
24.8	Designing Pediatric Siddha Wellness Centers and School Wellness Programs	3
25.1	Newborn Physical Examination and Documentation of Normal Parameters	2
25.2	Assessment and Phototherapy Simulation for Neonatal Jaundice	2
25.3	Recognition and Stabilization of Neonatal Respiratory Distress Using Oxygen Therapy	2
25.4	Simulation-Based Practice of Pediatric Vaccine Administration Techniques	2
25.5	Screening for Immunodeficiency and Pediatric Vaccination Planning	2
25.6	Understanding Innate and Adaptive Immunity through Clinical Comparison and Debate	2
25.7	Understanding Routine and Catch-up Pediatric Vaccination	2
25.8	Immunization Protocols in Special Pediatric Populations	2
25.9	Clinical Evaluation and Integrative Management of Pediatric Hemolytic Anemia and Polycythemia	2
25.10	Clinical Understanding and Management of Pediatric Platelet Disorders: Immune Thrombocytopenia (ITP) and Thrombotic Thrombocytopenic Purpura (TTP)	2
26.1	Clinical Identification of Respiratory Sounds and Symptom Correlation in children	2
26.2	Clinical Examination and Siddha-Based Management of Pediatric Upper Respiratory Tract Infection (URTI).	2
26.3	Evaluation and Supportive Management of Pediatric Lower Respiratory Tract Infections (LRTI)	2

26.4	Radiological Interpretation of Pediatric tuberculosis (TB), chronic obstructive pulmonary disease (COPD), and Lung Abscess	2
26.5	Pulmonary Function Test Interpretation in Pediatric Respiratory Disorders	2
26.6	Clinical Evaluation and Siddha-Based Management of Pediatric Heart Failure	2
26.7	Identification of Aortic Arch Anomalies and Pediatric Pulmonary Arterial Hypertension	2
26.8	Classification of Congenital Heart Diseases Using Echocardiographic Simulations	2
26.9	Identification and Management of Acyanotic Congenital Heart Diseases through Gamified Learning	2
26.10	Clinical Simulation and Diagnosis of Cyanotic Congenital Heart Diseases	2
27.1	Clinical Assessment and Management of Pediatric Diarrheal Illnesses	2
27.2	Clinical Examination and Management Planning of Pediatric Hernias	2
27.3	Clinical Evaluation and Integrative Management of Pediatric Gastrointestinal Disorders	2
27.4	Clinical Identification and Management of Pediatric Hepatitis	2
27.5	Clinical Identification and Management of Pediatric Liver Disorders	2
27.6	Clinical Evaluation and Management of Pediatric Glomerular Diseases	2
27.7	Clinical Examination and Management of Pediatric Renal Failure	2
27.8	Clinical Approach to Pediatric Urinary Tract Infections (UTIs)	2
27.9	Clinical Presentation and Management of Pediatric Voiding Disorders	2
27.10	Clinical Assessment and Management of Pediatric Renal Calculi	2
28.1	Clinical Case Presentation and Central nervous system (CNS) Examination in Pediatric Seizure Disorders	2
28.2	Clinical Assessment and Multidisciplinary Planning for Pediatric Encephalopathy	2
28.3	Clinical Evaluation and Management Planning in Pediatric Demyelinating Disorders	2

28.4	Clinical Evaluation and Management of Bell’s Palsy in Pediatric Patients	2
28.5	Clinical Evaluation and Management of Pediatric Central nervous system (CNS) Infections	2
28.6	Clinical Evaluation and Management of Pediatric Movement Disorders	2
28.7	Clinical Assessment and Multidisciplinary Management of Pediatric Muscular Dystrophies	2
28.8	Clinical Assessment and Early Intervention Strategies for Floppy Infant Syndrome	2
28.9	Clinical Evaluation and Management of Pediatric Fractures	2
28.10	Assessment and Conservative Management of Congenital Foot Deformities	2
29.1	Clinical Evaluation and Management Planning for Pediatric Autoimmune Disorders Systemic Lupus Erythematosus (SLE) and Juvenile Rheumatoid Arthritis (JRA)	2
29.2	Clinical Evaluation and Imaging Interpretation in Pediatric Large Vessel Vasculitis (Takayasu Arteritis)	2
29.3	Clinical Assessment and Management of Pediatric Fever	2
29.4	Classification and Management of Pediatric Gram-Positive and Gram-Negative Infections	2
29.5	Clinical Assessment and Management of Pediatric Leptospirosis	2
29.6	Clinical Assessment and Management of Measles, Mumps, and Rubella (MMR) in Pediatric Practice	2
29.7	Clinical Identification and Management of Pediatric Vector-Borne Diseases (Dengue, Yellow Fever, Ebola)	2
29.8	Clinical Assessment and Management of Pediatric Malaria and Giardiasis	2
29.9	Clinical Evaluation and Management of Pediatric Helminthic Infestations	2
29.10	Clinical Presentation and Management of Pediatric Fungal Infections	2
30.1	Clinical Diagnosis and Management of Pediatric Psoriasis	2
30.2	Clinical Assessment and Management of Impetigo and Scabies in Children	2
30.3	Clinical Diagnosis and Management of Molluscum Contagiosum and Vitiligo in Children	2

30.4	Clinical Evaluation and Management of Pediatric Thyroid Disorders	2
30.5	Clinical Diagnosis and Management of Calcium Disorders and Metabolic Rickets	2
30.6	Clinical Assessment and Management of Juvenile Diabetes Mellitus	2
30.7	Clinical Evaluation and Management of Pediatric Calcium Disorders and Rickets	2
30.8	Clinical Assessment and Emergency Management of Pediatric Adrenal Disorders	2
30.9	Clinical Evaluation and Management of Pediatric Female Gonadal Disorders	2
30.10	Clinical Evaluation and Management of Male Gonadal Disorders	2
31.1	Simulation-Based Management of Pediatric Acute Lymphoblastic Leukemia (ALL) with Chemotherapy Support	2
31.2	Simulated Supportive Care in Pediatric Acute Myeloid Leukemia (AML)	2
31.3	Simulated Patient Protocol Development for Pediatric Lymphoma	2
31.4	Clinical Evaluation and Management Planning of Pediatric Bone and Soft Tissue Tumors	2
31.5	Case-Based Evaluation and Management Planning of Pediatric Neuroblastoma	2
31.6	Clinical Assessment and Management of Pediatric Metabolic Disorders	2
31.7	Clinical Simulation and Management Planning for Pediatric phenylketonuria (PKU) and maple syrup urine disease (MSUD).	2
31.8	Clinical Case Simulation and Management of Pediatric Gaucher Disease	2
31.9	Clinical Simulation and Management Planning for Pediatric Wilson’s Disease	2
31.10	Clinical Recognition and Management of Glycogen Storage Disorders	2
32.1	Clinical Assessment and Management of Pediatric Otitis Media	2
32.2	Clinical Assessment and Management of Acute and Chronic Sinusitis in Children	2
32.3	Clinical Examination and Management of Pediatric Tonsillitis and Adenoid Hypertrophy	2

32.4	Clinical Evaluation and First-Line Management of Pediatric Epistaxis	2
32.5	Clinical Assessment and Management Planning of Pediatric Laryngomalacia	2
32.6	Clinical Assessment and Management of Pediatric Mastoiditis	2
32.7	Visual Acuity Testing and Eye Alignment Assessment in Children	2
32.8	Management and Hygiene Protocols in Pediatric Conjunctivitis	2
32.9	Clinical Assessment and Preventive Management of Pediatric Dental Caries	2
32.10	Clinical Evaluation and Management of Pediatric Gingivitis and Enamel Hypoplasia	2

Table 5 : Experiential learning Activity

(*Refer table 3 of similar activity number)		
Experiential learning No*	**Experiential name**	**Hours**
1.1	Clinical Identification and Analysis of Sikappu Noi Types	3
1.2	Clinical Identification and Analysis of Sikappu Noi in Neonatal Skin Disorders	3
1.3	Clinical Observation and Diagnostic Differentiation of Etchi Noi in Neonates	4
1.4	Clinical Observation and Diagnostic Analysis of Kuligan Noi in Neonates	3
1.5	Advanced Clinical Identification and Analysis of Poopu Noi in Neonates	3
1.6	Clinical Analysis of Pirali Noi with Abdominal Distention in Neonates	3
1.7	Clinical Observation and Analysis of Thodam Noi and Ratchai/Kulisam Kattuthal	3
1.8	Clinical Classification and Management of Sooriya Noi and Santhira Noi	4
2.1	Clinical Identification and Siddha Diagnosis of Vilaachuzhiyan Subtypes in Pediatric Respiratory Disorders	4
2.2	Case-Based Diagnosis and Preventive Care for Vilaachuzhiyan	3
2.3	Case-Based Diagnosis and Management of Muppirai (Chronic Cough) in Children	3
2.4	Evaluation of various forms of vilaachuziyan in infants with cough and breathing difficulty	3
2.5	Siddha Diagnostic Identification of Pediatric Kaasam, Kaayam, and Ilaippu Noi	3
2.6	Siddha Treatment Strategies for Pediatric Kaasam, Kaayam, and Ilaippu Noi	3
2.7	Literary Exploration of Kanam Noi Classifications in Siddha Texts	3
2.8	Comprehensive Siddha Management of Pediatric Kanai Noi: From Cause Analysis to Long-Term Care	4
3.1	Clinical Identification and Classification of Kudaletram and Kudalirakka Noigal	3

3.2	Diagnostic Understanding and Evaluation of Vikkal and Thaagam	3
3.3	Clinical Examination and Classification of Pediatric Moola Noigal, Pavuthiram, and Moola Rogam	3
3.4	Clinical Examination and Classification of Pediatric Vayitru Valigal	3
3.5	Clinical and Laboratory Differential Diagnosis of Pediatric Diarrheal Disorders	4
3.6	Clinical and Laboratory Differentiation of Vaanthi Noigal and Sarthal	3
3.7	Literary Documentation of Maantha Noigal Classifications	3
3.8	Clinical Case Evaluation and Diagnosis of Maantha Noikal	4
4.1	Documentation and Diagnostic Compilation of Siddha Neuromuscular Disorders in Pediatrics	4
4.2	Clinical Case-Based Management of Pediatric Neuromuscular Disorders	3
4.3	Documentation and Diagnostic Compilation of Soolai, Moorchai, and Baalar Mayakkam	4
4.4	Clinical Management of Pediatric Soolai, Moorchai, and Baalar Mayakkam	3
4.5	Documentation and Diagnostic Compilation of Pediatric Vaatham Disorders.	3
4.6	Clinical Exposure and Siddha Management of Pediatric Vaatham Disorders	3
4.7	Diagnostic Analysis and Classification of Baala Vaatham in Pediatrics	3
4.8	Siddha Treatment Approaches for Managing Baala Vaatham	3
5.1	Literary Documentation and Diagnostic Framework for Paandu, Sobai, Baalar Manjal Noi, and Kaamalai	4
5.2	Siddha Management Planning for Pediatric Paandu, Sobai, and Kaamalai	3
5.3	Clinical Siddha Management of Karal Sura Rogam and Karal Rogam	3
5.4	Siddha Clinical Management of Pediatric Ullu Rogam	3

5.5	Literary Documentation and Classification Analysis of Baala Pitham	3
5.6	Clinical Case Discussion and Siddha Management Planning for Pediatric Baala Pitham	3
5.7	Clinical Analysis and Comparative Debate on Pediatric Singu Noi Types	4
5.8	Peer-Led Evaluation and Gamified Exploration of Pediatric Singu Noi	3
6.1	Interactive Classification and Problem-Solving activity on Baala Megam and Anda Vaatham	3
6.2	Interactive Classification and Recognition of Pediatric Urinary Disorders	4
6.3	Clinical Observation and Emergency Siddha Intervention for Pediatric Sanni and Sanni Vali	4
6.4	Clinical Observation, Empathy Reflection, and Siddha Classification of Oozhi Noi and Balar Suram	3
6.5	Clinical Observation and Siddha Diagnosis of Nava Suram and Kudora Suram	3
6.6	Early Clinical Exposure and Siddha Emergency Care for Pediatric Febrile and Neurological Conditions	3
6.7	Clinical Identification and Classification of Mannan (Measles) Types	3
6.8	Clinical Case Observation and Documentation of Balar Vaisoori, Anali, Patrai Noi, Kalloori Noi and Balar Aliyan	3
7.1	Clinical Observation and Literary Comparison of Pediatric Vitharpam and Vaarppu	4
7.2	Siddha Treatment Planning and Debate on Preventive vs. Curative Care in Vitharpam and Vaarppu	3
7.3	Classification, Clinical Reasoning, and Management in Parangi Noi	3
7.4	Clinical Simulation and Debate on Siddha Management of Ponni and Pilavai	3
7.5	Textual Mapping and Clinical Insight: Literature Documentation on Balakarappan	4
7.6	Clinical Observation and Siddha Management of Pediatric Karappaan	3
7.7	Literary Review and Documentation of Kapaala Kuttam, Pediatric Kuttam, and Mahaa Kuttam	3
7.8	Clinical Exposure and Application of Siddha Therapies for Kapaala Kuttam and Mahaakuttam	3

8.1	Literary Compilation of Vippuruthi, Viyarvai, and Vishapaakam from Classical Siddha Texts	3
8.2	Clinical Insights into Siddha Management of Pediatric Vippuruthi, Viyarvai, and Vishapaakam	2
8.3	Group-Based Clinical Analysis and Identification of Paatha Rogam Types	3
8.4	Clinical Demonstration and Communication Role-Play for Pediatric Amirtha Rogam	3
8.5	Documentation of Paatha Rogam and Paatha Silerpanam	3
8.6	Clinical Case Management and Siddha Application for Pediatric Foot Disorders	3
8.7	Clinical Observation and Treatment Simulation for Pediatric Kudarpuzhu	3
8.8	Clinical Diagnosis and Management of Pediatric Kirumi Using Siddha Principles	3
8.9	Clinical Analysis and Comparative Documentation of Pediatric Worm Infestations	3
9.1	Exploring Historical Evolution and Pediatric Applications of Varmology	3
9.2	Varmam Therapy in Pediatric Neurological and Musculoskeletal Care:	3
9.3	Field Exploration of Regional Pediatric Varmam Practices in Tamil Nadu	3
9.4	Understanding Nadi and Vayukkal Concepts through Simulation and Model-Based Demonstration	3
9.5	Saram, Vasi, Amirtham, and Visham in Pediatric Siddha Care.	3
9.6	Cosmic Energy and Pediatric Varmam: Bridging Traditional Concepts with Contemporary Inquiry	3
9.7	Text-Based Exploration of Pediatric Disorders in Varmam Literature	3
9.8	Integrated Pediatric Care Using Siddha Internal Medicine and Varmam Synergy	3
9.9	Therapeutic Application of Varmam for Pediatric Neurodevelopmental and Sensory Disorders	2
10.1	Vital Varmam Techniques for Pediatric Symptom Relief	2

10.2	Region-Specific Varmam Techniques for Pediatric Motor Development	3
10.3	Ethics and Safety Protocols in Pediatric Varmam Therapy	3
10.4	Safe Clinical Protocols for Pediatric Varmam Therapy	3
10.5	Simulation Workshop on Varmam for Pediatric Gastrointestinal Symptoms	3
10.6	Varmam Therapy Practice for Pediatric Respiratory Symptoms	3
10.7	Case-Based Varmam Therapy Planning for Pediatric Neurological Disorders	3
10.8	Clinical Observation of Varmam Therapy in Pediatric Metabolic Disorders	3
10.9	Application of Varmam Techniques in Pediatric Musculoskeletal and Developmental Disorders	3
11.1	Pediatric Siddha Thokkanam Techniques for Musculoskeletal and Neuromuscular Disorders	4
11.2	Observation of Pediatric Siddha External Therapies – Ottradam and Vedhu	3
11.3	Pediatric Siddha Orthopedic Immobilization Techniques – Kombu Kattal, Kattu, Patru	4
11.4	Role-Play and Practical Demonstration of Podithimurthal for Pediatric Care	3
11.5	Observation and Ethical Reflection on Attai Vidal (Leech Therapy) in Pediatric Care	3
11.6	Clinical Observation and Application of Suttigai Therapy in Pediatric Practice	3
11.7	Therapeutic Problem Solving with Pugai and Thuvalai in Pediatric Care	3
11.8	Siddha External Therapies for Ear, Nose, and Throat (ENT) Conditions in Pediatrics	3
12.1	Siddha External Therapies for Pediatric Autism Spectrum Disorder (ASD) and Attention-Deficit Hyperactivity Disorder (ADHD).	4
12.2	Siddha External Therapies for Developmental Delay and Intellectual Disability	3
12.3	Integrating Siddha and Modern External Therapies in Pediatric Care	3
12.4	Pediatric Pain Relief through Siddha External Therapies	3

12.5	Siddha Herbal Paste and Bandaging for Pediatric Wound Care	2
12.6	Case Study Documentation: Pediatric External Therapies for Skin and Respiratory Conditions	4
12.7	Documentation of Pediatric Siddha External Therapies	3
12.8	Case-Based Evidence Review of Siddha External Therapies in Pediatrics	4
13.1	Pediatric Counseling Techniques through Simulation and Role Play	3
13.2	Parental Education and Support in Pediatric Siddha Care	3
13.3	Occupational Therapy Interventions for Pediatric Independence	3
13.4	Speech and Language Therapy Strategies for Pediatric Communication Disorders	3
13.5	Field-Based Integration of Siddha and Modern Pediatric Orthopedic Care	3
13.6	Integrative Approaches to Pediatric Sensory Impairments	3
13.7	Siddha-Based Neuro-Rehabilitation for Pediatric Motor Disorders	4
13.8	Integrative Management of Pediatric Epilepsy and Seizure Disorders	4
14.1	Integrative Management of Pediatric Learning Disabilities	3
14.2	Integrated Management of Pediatric Behavioral and Learning Disorders	3
14.3	Integrated Case Simulation: Learning Disorders and Pediatric Anxiety	3
14.4	Designing a Siddha Wellness Center for Special Children	3
14.5	Business Plan Simulation for a Siddha Wellness Center for Special Children	3
14.6	Legal and National Accreditation Board for Hospitals (NABH) Compliance Simulation for Siddha Pediatric Wellness Centers	4
14.7	Simulated Case Management of Pediatric Obsessive-Compulsive Disorder (OCD) with Integrative Therapies	3

14.8	Integrated Simulation: Pediatric Neuropsychiatric Case Management	4
15.1	Foundations and Practice of Siddhar Yogam in Pediatric Care	3
15.2	Siddha Yoga Practices for Enhancing Digestive Health in Children	3
15.3	Siddha Yoga Practices for Pediatric Musculoskeletal Strength and Flexibility	3
15.4	Siddhar Yogam Techniques to Enhance Immunity in Children	3
15.5	Mindfulness and Pranayamam Techniques for Pediatric Calmness	3
15.6	Siddha Yoga Interventions for Pediatric Behavioral Disorders	4
15.7	Siddha Yoga for Enhancing Focus and Memory in School-Age Children	3
15.8	Integrative Siddha Yoga and Diet Planning for Pediatric Wellness	4
16.1	Siddha Yoga for Enhancing Speech and Cognitive Development in Children	3
16.2	Siddha Yoga Therapy for Children with Autism Spectrum Disorder (ASD)	3
16.3	Siddha Yoga Techniques for Speech and Cognitive Enhancement in Children	3
16.4	Siddha Yoga Practices for Pediatric Cardiovascular Health	3
16.5	Therapeutic Yoga for Pediatric Respiratory Disorders	4
16.6	Adaptation of Siddha Yoga Routines for Children with Special Needs	4
16.7	Therapeutic Yoga for Stress and Anxiety in Children	3
16.8	Case Studies and Evidence-Based Practices in Siddha Yoga for Pediatrics	3
17.1	Siddha-Based Pediatric Nutrition and Balanced Meal Planning	4
17.2	Visual Learning Tools for Age-Specific Siddha Nutrition Education	3
17.3	Siddha-Based Nutritional Planning for Pediatric Developmental Stages	3

17.4	Siddha Nutrition Planning for Pediatric Clinical Scenarios	4
17.5	Understanding Siddha Food Classifications and Their Role in Pediatric Health	3
17.6	Poster Presentation on Functional Foods in Siddha-Based Pediatric Nutrition	3
17.7	Role Play on Siddha-Based Dietary Consultation for Common Pediatric Illnesses	3
17.8	Siddha Dietary Management for Common Pediatric Disorders	3
18.1	Symposium on Siddha Nutrition for Pediatric Immunity and Nutritional Deficiency Management	4
18.2	Siddha-Based Substitute Feeding for Children Not Receiving Enough Breast Milk	4
18.3	Laboratory Preparation of Siddha Herbal Beverages for Pediatric Health	3
18.4	Balancing Siddha and Modern Nutritional Guidelines for Pediatric Health	4
18.5	Scientific Debate on Pediatric Siddha Dietetics	4
18.6	Preparation of Case Study Guidelines Report on Pediatric Siddha Nutrition Management	4
18.7	Siddha and Scientific Dietary Documentation for Children with Special Needs	3
19.1	Siddha Preventive Strategies and Immunity Counseling in Pediatrics	3
19.2	Siddha Preventive Therapies and Integrative Immunity Support in Pediatrics	4
19.3	Siddha Health Camp Simulation for Pediatric Public Health	4
19.4	Seasonal Preventive Siddha Care for Pediatric Health	3
19.5	Siddha Diagnostic Skills and Nutritional Assessment in Pediatrics	4
19.6	Siddha-Based Dietary Planning for Pediatric Age Groups	4
19.7	Siddha Integration with National Immunization Programs	4

20.1	Preparation and Application of Siddha Remedies in Pediatric Care	3
20.2	Siddha Formulations and Kaappu Practices for Pediatric Immunity	4
20.3	Legal and Policy Advocacy in Siddha Pediatric Public Health	3
20.4	Legal Integration and Public Health Advocacy in Siddha Pediatrics	4
20.5	Siddha-Based Community Education for Pediatric Health Promotion	4
20.6	Siddha Awareness Program for Parents and School Communities	4
20.7	Integrating Siddha into National and Global Pediatric Health Programs	4
21.1	OTC Label Analysis for Pediatric Safety and Compliance	3
21.2	Weight-Based Drug Dosing and Pediatric Safety Simulation	3
21.3	Personalized Pediatric Drug Selection and Dosing Workshop	4
21.4	Identification and Application of Pediatric Herbal Plants	4
21.5	Field Study on Siddha Pediatric Clinical Practices	4
21.6	Laboratory Quality Control of Pediatric Siddha Formulations	4
21.7	Experimental Validation of Siddha Pediatric Formulation	4
22.1	Preparation of Siddha Internal Formulations for Pediatric Systemic and Neurological Disorders	3
22.2	Internal Siddha Formulations for Pediatric Skin and Developmental Disorders	4
22.3	Preparation and Application of External Siddha Remedies for Pediatric Skin, Eye, and Ear Disorders	3
22.4	Preparation and Application of External Siddha Remedies in Pediatric Musculoskeletal Care	4
22.5	Siddha Case-Based Management for Pediatric Ailments	4
22.6	Designing Integrative Pediatric Treatment Plans from Case Reviews	4

22.7	Siddha Pediatric Formulation: Preparation to Packaging	4
23.1	Hospital Infrastructure and Digital Tools for Siddha Pediatric Care	4
23.2	Designing and Managing Siddha Pediatric Hospitals – Infrastructure and Sustainability	3
23.3	Observation and Analysis of National Accreditation Board for Hospitals & Healthcare Providers (NABH) Quality Practices for Siddha Pediatric Hospitals	4
23.4	Simulated National Accreditation Board for Hospitals & Healthcare Providers (NABH) Accreditation for Siddha Pediatric Hospital	3
23.5	Financial Planning for a Siddha Pediatric Hospital	4
23.6	Field Observation of Hospital Management in Pediatric Siddha Care	4
23.7	Strategic Staff and Resource Scheduling for Siddha Pediatric Hospital	4
24.1	Field Visit and Simulation on Pediatric Siddha Formulation Design	4
24.2	Strategic Launch Planning for Pediatric Siddha Product	3
24.3	Model Project Report Preparation for Government Subsidies	3
24.4	Regulatory Case Analysis of Approved Siddha Pediatric Products	4
24.5	Field Visit and Reflection on Siddha Pediatric Product Export Compliance	3
24.6	Field Visit to Siddha Pediatric Product Export Unit	3
24.7	Designing a Pediatric Siddha Wellness Center Model	3
24.8	Siddha Wellness Program Design for Schools	3
25.1	Simulation of Normal Newborn Assessment	3
25.2	Simulation and Monitoring of Phototherapy in Neonatal Jaundice Management	3
25.3	Simulation-Based Practice of Neonatal Respiratory Support and Continuous Positive Airway Pressure (CPAP) Application	3

25.4	Simulation-Based Vaccine Scheduling Using the National Immunization Schedule (NIS)	3
25.5	Hands-On Training and Case Reflection on Active and Passive Immunization	3
25.6	Workshop on Vaccine Classification, Administration Routes, and Cold Chain Management	3
25.7	Workshop on Designing Custom Pediatric Immunization Schedules	4
25.8	Clinical Diagnosis and Classification of Pediatric Anemia	4
26.1	Role-Play and Case Study on Upper Respiratory Tract Infections	3
26.2	Interactive Training on Diagnosing and Managing Lower Respiratory Tract Infections	4
26.3	Workshop on Recognition and Management of Foreign Body Aspiration in Children	3
26.4	Workshop on chest X-rays, Pulmonary Function Test (PFT), and Bronchoscopy Interpretation in Pediatric Respiratory Conditions	4
26.5	Case Simulation on Pediatric Congestive cardiac Failure Management	3
26.6	Simulation-Based Clinical Management of Left-to-Right Shunt Lesions Atrial septal defect (ASD), Ventricular septal defect (VSD), and Patent ductus arteriosus (PDA)	3
26.7	Interactive Case Study on Cyanotic Congenital Heart Disease with Reduced Pulmonary Flow	3
26.8	Role-Play and Case-Based Workshop on Pediatric Upper Respiratory Tract Infection (URTI) Management	3
27.1	Management of Diarrheal Illnesses: understand the Rehydration Techniques, Dietary Adjustments, and Public Health Measures	3
27.2	Case-Based Workshop on Pediatric Inguinal and Umbilical Hernias	2
27.3	Role-Play and Simulation on Pediatric Anorectal Disorder Management	3
27.4	Visits to the laboratory and the interpretation of liver function tests and diagnostic imaging.	3
27.5	Clinical Observation of Pediatric Dialysis and Transplant Care	3
27.6	Observation of Pediatric Rheumatology Care in Systemic Vasculitis and Lupus Nephritis	3

27.7	Management of Pediatric Voiding Disorders: Bladder Catheterization and Behavioral Therapy Techniques	3
27.8	Interactive Session on Dietary and Medical Management of Renal Calculi	3
27.9	Laboratory and Imaging Interpretation in Pediatric Urinary Disorders	3
28.1	Pediatric Headache: Role-Play and Lifestyle-Based Management	4
28.2	Multidisciplinary Neuro-Rehabilitation Planning in Pediatric Neurological Conditions	4
28.3	Recognition and Management of Pediatric Movement Disorders: A Practical Simulation-Based Approach	3
28.4	Clinical Observation of Congenital Muscle Disorders: Multidisciplinary and Empathetic Care in Pediatrics	4
28.5	Workshop on Pediatric Neuromuscular Transmission Disorders: Diagnosis and Multidisciplinary Care	4
28.6	Case-Based Learning on Non-Surgical and Surgical Management of Scoliosis and Kyphosis	4
28.7	Communication and Care Planning in Pediatric Arthritis Cases	3
29.1	Patient Case Analysis on Systemic Lupus Erythematosus (SLE) and Rheumatoid Arthritis	3
29.2	Case-Based Management of Mixed Connective Tissue Disease	4
29.3	Problem Solving in Pediatric Fever: Differentiation and Management Using Case-Based Analysis	3
29.4	Diagnosis and Management of Pediatric Viral Respiratory Infections through Case-Based Simulation	3
29.5	Community Education on Vector-Borne and Viral Infections through Role Play and Game-Based Learning	4
29.6	Community Outreach and Education on Malaria Prevention and Hygiene	3
29.7	Integrated Clinical and Public Health Strategies for Pediatric Helminthic Infections	3
29.8	Case-Based Diagnosis and Management of Pediatric Fungal Infections	3
30.1	Diagnosis and Management of Common Pediatric Skin Conditions:	3

30.2	Manage Urticaria, Steven Johnson syndrome, Molluscum Contagiosum and Vitiligo.	3
30.3	Simulation and Role-Play-Based Counseling for Pediatric Thyroid Disorders	3
30.4	Case-Based Learning on Pediatric Calcium Disorders and Bone Health Education	3
30.5	Diagnosis and manage adrenal gland disorders.	3
30.6	Community Counseling for Pediatric Obesity Prevention through Motivational Interviewing	3
30.7	Clinical Workshop on Diagnosis and Management of Pediatric Gonadal Disorders	4
30.8	Simulation-Based Genetic Counseling for Turner's and Klinefelter Syndromes	4
31.1	Workshop on Cancer Biology and Genetic Mutations in Pediatric Leukemia	4
31.2	Simulated Role-Play: Multidisciplinary Care Planning in Pediatric Acute Myeloid Leukemia (AML)	3
31.3	Case-Based Workshop on Pediatric Hodgkin and Non-Hodgkin Lymphoma	4
31.4	Interactive Case Study on Brain Tumor Diagnosis and Management	3
31.5	Role-Play Based Counseling for Pediatric Galactosemia Management	3
31.6	Jigsaw Group Research and Peer Teaching on Tay-Sachs Disease	3
31.7	Simulation-Based Interdisciplinary Care Planning for Pediatric Mitochondrial Disorders	3
31.8	Nutritional Planning for Pediatric Glycogen Storage Disorders	3
32.1	Role-Play on Caregiver Counseling in Pediatric Ear, Nose, and Throat Infections	3
32.2	Model-Based Demonstration and Simulation for Sinusitis Diagnosis	4
32.3	Simulated Emergency Response for Pediatric Foreign Body Aspiration	3
32.4	Case-Based Clinical Decision-Making in Pediatric Mastoiditis	3
32.5	Hygiene and Infection Control Practices in Pediatric Ocular Infections	3

32.6	Practical Vision Screening and Strabismus Detection in Pediatrics	3
32.7	Workshop and Role-Play: Pediatric Oral Hygiene and Preventive Dental Care	4
32.8	Simulation-Based Training on Fluoride Application and Dental Caries Prevention	3

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
SIDPG-KM	4	100 x 4 Papers = 400	400	800

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

Credit frame work

SIDPG-KM consists of 32 modules totaling 64 credits, which correspond to 1920 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 VI.

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
Semester No : 3						
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)						
M1 ???? ??????? ?????????? ????? ??????? - Paal Unnum paruvathil Varum Noigal (Diseases of Infancy and Early Childhood)	2	60		50		
M2 ????????????? ????????? ????? ????? ??????? - Kuzhanthaigalukku Undaagum Swaasa Mandala Noigal (Pediatric Respiratory Tract Disorders):	2	60		50		
Paper No : 2 (Integrative pediatrics with recent advances)						
M9 ???????????????? ????? ???? ???????? ??????????? - Kuzhanthaigalukkaana Siddha Varmam Maruthuva Adippadaigal (Fundamentals of Siddha Varmam in Pediatrics)	2	60		50		

M10 ?????????????? ?????? ???????? ??????? Kuzhanthaigalukkaana Varmam Maruthuva Muraigal (Paediatric Varmam Therapeutics)	2	60		50		
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)						
M17 ?????????????? ????? ???????? ???? ??????? - Kuzhanthaigalukkaana Siddha Maruthuva Unavu Muraigal (Siddha Based Pediatric Nutrition)	2	60		50		
M18 ???????????? ?????????? ??????? ???? ????????? ????? ???????? ???? ??????? - Kuzhanthaigalin Arogyam Matrum Noi Nilaigalil Siddha Maruthuva Unavu Muraigal (Siddha Based Dietary Practices in Pediatric Health and Diseases)	2	60		50		
Paper No : 4 (Essentials in Pediatrics)						
M25 Neonatology, Immunization and Hematology	2	60		50		
M26 Disorders of Respiratory System and Cardiovascular System	2	60		50		
	16	480		400		
Semester No : 4						
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)						
M3 ?????????? ??????? ??????? ???????????????? ??????? - Kuzhanthaigalin Iraippai Mattrum Kudalai paathikkum Noigal (Pediatric Gastrointestinal Disorders)	2	60		50		
M4 ???????????? ?????? ???????, ?????? ??????? ????????? ?????????? ???????? - Kuzhanthaigalin Narampu Mandalam, Thasaigal Matrum Mootukalai Paathikkum Noigal (Pediatric Diseases of Nervous System, Musculoskeletal System and Rheumatology):	2	60		50		
Paper No : 2 (Integrative pediatrics with recent advances)						
M11 ?????????????? ???????????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuvathin Adiappadaigal (Foundations and Comprehensive External Therapies for Pediatrics)	2	60		50		

M12 ?????????????? ?????????? ?????????? Kuzhanthaigalukkaana Pura Maruthuva Muraigal (Practical Applications and Integration of External Therapies Pediatrics)	2	60		50		
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)						
M19 ???????????? ???? ??????? ???? ????????? ????? ????????????? ?????????? - Kuzhanthaigalin Samooga Matrum Noi Thaduppil Siddha Maruthuvathin Adippadaigal (Foundations Community and Preventive Pediatrics in Siddha)	2	60		50		
M20 ?????????????? ???????? ??????? ???? ????????????? ????? ?????????? Kuzhanthaigalukkaana Maruthuva mattrum Pothu Sugatharathil Siddha Maruthuvam (Clinical Applications and Public Health in Siddha Pediatrics)	2	60		50		
Paper No : 4 (Essentials in Pediatrics)						
M27 Gastrointestinal system and Renal system	2	60		50		
M28 Neurological & Neuromuscular disorders, Musculoskeletal system	2	60		50		
	16	480		400		
Semester No : 5						
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)						
M5 ???????????? ????, ???, ????, ?????? ??????? ?????? ??????? - Kuzhanthaikalin Eeral, Kan, Kaathu, Mooku Matrum Thondai Noigal (Pediatric Disorders of Liver, Spleen, Eye, Ear, Nose, Tongue and Throat)	2	60		50		
M6 ?????????????? ????????? ?????????????, ???????????? ?????? ??????? ????? ??????? - Kuzhanthaigalukku Undaagum Pirappuruppu, Siruneerpaathai Thottru Matrum Thaapitha Noigal (Pediatric Genito-Urinary Tract Disorders and Infective/Inflammatory Diseases in Children)	2	60		50		
Paper No : 2 (Integrative pediatrics with recent advances)						

M13 ??????? ???? ?????????????? ??????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Virivana Maruthuva Muraigal (Comprehensive Management for Special Children)	2	60		50		
M14 ??????? ???? ?????????????? ???????????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Orunginaintha Maruthuva Muraigal (Integrated Management for Special Children)	2	60		50		
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)						
M21 ?????????????? ????? ?????????? - Kuzhanthaigalukkaana Siddha Marunthiyal (Siddha Pharmacology for Pediatrics)	2	60		50		
M22 ?????????????? ??????? ?????????? ??????? ???????? ??????? Kuzhanthaigalukkaana Marunthu Seimuraigal Mattrum Sikitchai Muraigal (Siddha Pharmaceutics and Therapeutics for Pediatrics	2	60		50		
Paper No : 4 (Essentials in Pediatrics)						
M29 Rheumatology and Infectious diseases	2	60		50		
M30 Dermatological disorders, Endocrinesystem & Reproductive system	2	60		50		
	16	480		400		
Semester No : 6						
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)						
M7 ???? ??????? Thol Noigal (Pediatric Dermotological Disorders)	2	60		50		
M8 ????????? ??????? ??????? ????? ????????? ???????? - Kudarpuzhu Noigal Matrum Parpala Noigalin Thoguppu (Worm infestations and other Pediatric disorders)	2	60		50		
Paper No : 2 (Integrative pediatrics with recent advances)						
M15 ???????????? ???? ??????? ???? ?????????????? ??????? ????? ??????? Kuzhanthaigalin Udal Matrum Manam Arogiyathirkana Siddhar Yoga Muraigal (Pediatric Yoga for Physical and Mental Development)	2	60		50		

M16 ???????????? ???? ???????????? ??????? ????? ??????? Kuzhanthaigalin Noi Nilaigalukkana Siddhar Yogam Muraigal (Therapeutic Siddhar Yogam for Pediatric Disorders)	2	60		50		
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)						
M23 ??????? ????? ???????? ?????? ????????? ??????? ????????????? Kuzhanthaigal Siddha Maruthuvamanaigalai Niruvuthal Matrrum Nirvagithal (Establishing and Managing Pediatric Siddha Hospitals)	2	60		50		
M24 ?????? ???????? ????? ??????? ????????????? ????? ????????? ??????? ???????????Thozhil Munaivil Siddha Kuzhanthai Maruthuvathirkana Puthiya Ukthigal and Vaipugal (Innovation and Oppertunities in Siddha Pediatric Entrepreneurship)	2	60		50		
Paper No : 4 (Essentials in Pediatrics)						
M31 Oncology and Metabolic disorders	2	60		50		
M32 Ear, Nose and Throat and Dental Disorders and Ophthalmology	2	60		50		
	16	480		400		
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

Semester No : 3		
Paper No : 1 Kuzhanthai Maruthuvam - Siddha		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
1	M1.???? ??????? ?????????? ????? ??????? - Paal Unnum paruvathil Varum Noigal (Diseases of Infancy and Early Childhood)	C1
2	M2.????????????? ????????? ????? ????? ??????? - Kuzhanthaigalukku Undaagum Swaasa Mandala Noigal (Pediatric Respiratory Tract Disorders):	C2
Paper No : 2 Integrative pediatrics with recent advances		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
3	M9.???????????????? ????? ???? ???????? ??????????? - Kuzhanthaigalukkaana Siddha Varmam Maruthuva Adippadaigal (Fundamentals of Siddha Varmam in Pediatrics)	C3
4	M10.???????????????? ?????? ???????? ??????? Kuzhanthaigalukkaana Varmam Maruthuva Muraigal (Paediatric Varmam Therapeutics)	C4
Paper No : 3 Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
5	M17.???????????????? ????? ???????? ???? ??????? - Kuzhanthaigalukkaana Siddha Maruthuva Unavu Muraigal (Siddha Based Pediatric Nutrition)	C5
6	M18.???????????? ?????????? ??????? ???? ????????? ????? ???????? ???? ??????? - Kuzhanthaigalin Arogyam Matrum Noi Nilaigalil Siddha Maruthuva Unavu Muraigal (Siddha Based Dietary Practices in Pediatric Health and Diseases)	C6
Paper No : 4 Essentials in Pediatrics		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
7	M25.Neonatology, Immunization and Hematology	C7
8	M26.Disorders of Respiratory System and Cardiovascular System	C8
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8) / Number

		of modules(8)

Semester No : 4

Paper No : 1 Kuzhanthai Maruthuvam - Siddha

A S.No	B Module number and Name	C MGP
1	M3.??????????? ??????? ??????? ???????????????????? ??????? - Kuzhanthaigalin Iraippai Mattrum Kudalai paathikkum Noigal (Pediatric Gastrointestinal Disorders)	C1
2	M4.????????????? ?????? ???????, ?????? ??????? ????????? ?????????? ??????? - Kuzhanthaigalin Narampu Mandalam, Thasaigal Matrum Mootukalai Paathikkum Noigal (Pediatric Diseases of Nervous System, Musculoskeletal System and Rheumatology):	C2

Paper No : 2 Integrative pediatrics with recent advances

A S.No	B Module number and Name	C MGP
3	M11.???????????????? ???????????????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuvathin Adiappadaigal (Foundations and Comprehensive External Therapies for Pediatrics)	C3
4	M12.???????????????? ??????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuva Muraigal (Practical Applications and Integration of External Therapies Pediatrics)	C4

Paper No : 3 Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship

A S.No	B Module number and Name	C MGP
5	M19.???????????? ???? ??????? ???? ????????? ????? ????????????????? ??????????? - Kuzhanthaigalin Samooga Matrum Noi Thaduppil Siddha Maruthuvathin Adippadaigal (Foundations Community and Preventive Pediatrics in Siddha)	C5
6	M20.???????????????? ???????? ??????? ???? ????????????? ????? ?????????? Kuzhanthaigalukkaana Maruthuva mattrum Pothu Sugatharathil Siddha Maruthuvam (Clinical Applications and Public Health in Siddha Pediatrics)	C6

Paper No : 4 Essentials in Pediatrics

A S.No	B Module number and Name	C MGP
7	M27.Gastrointestinal system and Renal system	C7
8	M28.Neurological & Neuromuscular disorders, Musculoskeletal system	C8
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8) / Number of modules(8)

Semester No : 5

Paper No : 1 Kuzhanthai Maruthuvam - Siddha		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
1	M5.???????????? ????, ???, ????, ?????? ??????? ?????? ??????? - Kuzhanthaikalin Eeral, Kan, Kaathu, Mooku Matrum Thondai Noigal (Pediatric Disorders of Liver, Spleen, Eye, Ear, Nose, Tongue and Throat)	C1
2	M6.????????????? ????????? ?????????????, ???????????? ?????? ??????? ????? ??????? - Kuzhanthaigalukku Undaagum Pirappuruppu, Siruneerpaathai Thottru Matrum Thaapitha Noigal (Pediatric Genito-Urinary Tract Disorders and Infective/Inflammatory Diseases in Children)	C2
Paper No : 2 Integrative pediatrics with recent advances		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
3	M13.??????? ???? ?????????????? ??????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Virivana Maruthuva Muraigal (Comprehensive Management for Special Children)	C3
4	M14.??????? ???? ?????????????? ???????????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Orunginaintha Maruthuva Muraigal (Integrated Management for Special Children)	C4
Paper No : 3 Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
5	M21.?????????????? ????? ?????????? - Kuzhanthaigalukkaana Siddha Marunthiyal (Siddha Pharmacology for Pediatrics)	C5
6	M22.?????????????? ??????? ??????????? ??????? ???????? ??????? Kuzhanthaigalukkaana Marunthu Seimuraigal Mattrum Sikitchai Muraigal (Siddha Pharmaceutics and Therapeutics for Pediatrics	C6
Paper No : 4 Essentials in Pediatrics		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
7	M29.Rheumatology and Infectious diseases	C7
8	M30.Dermatological disorders, Endocrinesystem & Reproductive system	C8
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8) / Number of modules(8)
Semester No : 6		

Paper No : 1 Kuzhanthai Maruthuvam - Siddha		
A S.No	**B Module number and Name**	**C MGP**
1	M7.???? ??????? Thol Noigal (Pediatric Dermotological Disorders)	C1
2	M8.????????? ??????? ??????? ????? ????????? ???????? - Kudarpuzhu Noigal Matrum Parpala Noigalin Thoguppu (Worm infestations and other Pediatric disorders)	C2
Paper No : 2 Integrative pediatrics with recent advances		
A S.No	**B Module number and Name**	**C MGP**
3	M15.???????????? ???? ??????? ???? ??????????????? ??????? ????? ??????? Kuzhanthaigalin Udal Matrum Manam Arogiyathirkana Siddhar Yoga Muraigal (Pediatric Yoga for Physical and Mental Development)	C3
4	M16.???????????? ???? ???????????? ??????? ????? ??????? Kuzhanthaigalin Noi Nilaigalukkana Siddhar Yogam Muraigal (Therapeutic Siddhar Yogam for Pediatric Disorders)	C4
Paper No : 3 Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship		
A S.No	**B Module number and Name**	**C MGP**
5	M23.??????? ????? ???????? ?????? ????????? ??????? ????????????? Kuzhanthaigal Siddha Maruthuvamanaigalai Niruvuthal Matrrum Nirvagithal (Establishing and Managing Pediatric Siddha Hospitals)	C5
6	M24.?????? ???????? ????? ??????? ??????????????? ????? ????????? ??????? ???????????Thozhil Munaivil Siddha Kuzhanthai Maruthuvathirkana Puthiya Ukthigal and Vaipugal (Innovation and Oppertunities in Siddha Pediatric Entrepreneurship)	C6
Paper No : 4 Essentials in Pediatrics		
A S.No	**B Module number and Name**	**C MGP**
7	M31.Oncology and Metabolic disorders	C7
8	M32.Ear, Nose and Throat and Dental Disorders and Ophthalmology	C8
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8) / Number of modules(8)

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 SIDDHA Examination
SIDPG-KM
Sem VI

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
Paper No : 1 (Kuzhanthai Maruthuvam - Siddha)				
(M-1)???? ??????? ?????????? ????? ??????? - Paal Unnum paruvathil Varum Noigal (Diseases of Infancy and Early Childhood) (Marks: Range 5-10)				
1	(U-1) ??????? ???? (Sikappu Noi)	No	Yes	No
2	(U-2) ?????? ????, ?????, ???? ??????? ???? ???? (Pooppu, Pirali, Therai and Alakai)	No	Yes	No
3	(U-3) ?????, ????????, ??????? ?????, ??????? ??????? ???????? (Etchi, Meletchi, Etchil Roakam, Kuligan, and Azhukural)	No	Yes	No
4	(U-4) ????? ????, ?????? ???? ??????? ?????/????? (Sooriya Noi, Santhira Noi, and Thoodam/Thosham)	No	Yes	No
(M-2)?????????????? ????????? ????? ????? ??????? - Kuzhanthaigalukku Undaagum Swaasa Mandala Noigal (Pediatric Respiratory Tract Disorders): (Marks: Range 5-20)				
1	(U-1) ??????????? - Vilaachuziyan	Yes	Yes	Yes
2	(U-2) ?????? ??????? ???????? - Irumal and Muppirai	Yes	Yes	Yes
3	(U-3) ?????, ????? ??????? ??????????? - Kaasam, Kaayam, and Ilaippu Noi	Yes	Yes	Yes
4	(U-4) ??? ???? - Kanai Noi	Yes	Yes	Yes
(M-3)??????????? ??????? ??????? ???????????????? ??????? - Kuzhanthaigalin Iraippai Mattrum Kudalai paathikkum Noigal (Pediatric Gastrointestinal Disorders) (Marks: Range 5-20)				
1	(U-1) ??????????, ????????? ???????, ????, ??????? ??????? ????? - Kudaletram, Kudalirakka Noigal, Theerai, Vikkal and Thaagam	Yes	Yes	Yes
2	(U-2) ????????????? - ??????, ????????, ????????? ??????? ??????? - Vayitru Valikal - Vaaivu, Kunmam, Ulaimaanthai and Kaduppu	Yes	Yes	Yes
3	(U-3) ??????, ???????? ??????? ???? ??????? ??????? - Vaanthi, Kazhicchal,mattrum adhanai saarntha noigal	Yes	Yes	Yes
4	(U-4) ????? ??????? - Maantha Noigal	Yes	Yes	Yes
(M-4)???????????? ?????? ???????, ?????? ??????? ????????? ?????????? ??????? - Kuzhanthaigalin Narampu Mandalam, Thasaigal Matrum Mootukalai Paathikkum Noigal (Pediatric Diseases of Nervous System, Musculoskeletal System and Rheumatology): (Marks: Range 5-20)				
1	(U-1) ??????? ????, ??? ????, ????, ???????? ??????? ????????? - Valippu Noi, Vali Noi, Suzhali, Nadukkan, and Puraveechu	Yes	Yes	Yes
2	(U-2) ????, ???????? ??????? ??????? - Soolai, Moorchai and Mayakkam	No	Yes	Yes

3	(U-3) ????????, ??????? ????? ??????? ?????????? ????? - Sura Vaadham, Akkini Vadham, Mel moochu Vadham	No	Yes	Yes
4	(U-4) ???????? - Baalavaatham	Yes	Yes	Yes
(M-5)???????????? ????, ???, ????, ?????? ??????? ?????? ??????? - Kuzhanthaikalin Eeral, Kan, Kaathu, Mooku Matrum Thondai Noigal (Pediatric Disorders of Liver, Spleen, Eye, Ear, Nose, Tongue and Throat) (Marks: Range 5-20)				
1	(U-1) ??????, ????, ?????? ???? ??????? ?????? - Paandu, Sobai, Manjal Noi and Kaamalai	Yes	Yes	No
2	(U-2) ????? ?????, ????? ??? ????? ??????? ????? ????? - Ullu Rogam, Kaaral Sura Rogam and Kaaral Rogam	No	Yes	Yes
3	(U-3) ?????????? - Baala Pitham	No	Yes	Yes
4	(U-4) ?????????? - Singu Noi	No	Yes	Yes
(M-6)?????????????? ????????? ?????????????, ???????????? ?????? ??????? ????? ??????? - Kuzhanthaigalukku Undaagum Pirappuruppu, Siruneerpaathai Thottru Matrum Thaapitha Noigal (Pediatric Genito-Urinary Tract Disorders and Infective/Inflammatory Diseases in Children) (Marks: Range 5-20)				
1	(U-1) ??? ?????, ???? ?????, ??????? ?????, ??????? ??????????, ?????? ????? ??????? ????? ????? - Bala Megam, Anda Vatham, Moothira Kaatham, Moothira Kiricharam, Achmari Rogam and Vasthi Rogam	No	Yes	Yes
2	(U-2) ????? ????, ????? ??? - Sanni Noi, Sanni Vali	No	Yes	No
3	(U-3) ??? ????, ????? - Oozhi Noi, and Suram	Yes	Yes	No
4	(U-4) ??????, ????? ?????? - Mannan, Balar Vaisoori	No	Yes	Yes
(M-7)???? ??????? Thol Noigal (Pediatric Dermotological Disorders) (Marks: Range 5)				
1	(U-1) ???????? ??????? ???????? - Vitharpam and Vaarppu	No	Yes	Yes
2	(U-2) ??????????, ?????? ??????? ????? - Parangi Noi, Ponni and Pilavai	No	Yes	Yes
3	(U-3) ??? ???????? - Bala Karappaan	Yes	Yes	Yes
4	(U-4) ??????? - Kuttam	No	Yes	Yes
(M-8)????????? ??????? ??????? ????? ????????? ???????? - Kudarpuzhu Noigal Matrum Parpala Noigalin Thoguppu (Worm infestations and other Pediatric disorders) (Marks: Range 5-15)				
1	(U-1) ??????????, ??????? ??????? ?????????? - Vippuruthi, Viyarvai and Vishapaakam	No	Yes	No
2	(U-2) ??? ????? ??????? ?????? ????? -Sira Rogam and Amirtha Rogam	No	Yes	Yes
3	(U-3) ??? ????? - Paatha Rogam	No	Yes	No
4	(U-4) ????????? ??????? - Kudarpuzhu Noigal	No	Yes	Yes

S.No	List of Module/Unit	ABQ	SAQ	LAQ
Paper No : 2 (Integrative pediatrics with recent advances)				
(M-9)?????????????? ????? ???? ???????? ??????????? - Kuzhanthaigalukkaana Siddha Varmam Maruthuva Adippadaigal (Fundamentals of Siddha Varmam in Pediatrics) (Marks: Range 5-10)				
1	(U-1) ????? ?????????? ?????? - Siddha Varmathin Varalaru - History of Siddha Varmam	No	Yes	No
2	(U-2) ???????????? ????? ?????????? ??????????? - Kuzhanthaikalin Siddha Varmathin Adippadaigal - Basic Concepts of Siddha Varmam in Pediatrics	No	Yes	No
3	(U-3) ???? ???? ?????? - Varmam Anda Aatral - Varmam Cosmic Energy	No	Yes	No
4	(U-4) ???? ????????? ??????? ????????? ??????? - Varma NootkaliL Kuzhanthai Maruthuva Muraigal Pediatric Medicine in Varmam Literatures	No	Yes	No
(M-10)?????????????? ?????? ???????? ??????? Kuzhanthaigalukkaana Varmam Maruthuva Muraigal (Paediatric Varmam Therapeutics) (Marks: Range 5-20)				
1	(U-1) ???? ??????????? ?????? ??????? ????????????? - Varamam Pulligalin Vagaigal matrum Irupidngal Classification and Locations of Varmam Points	Yes	Yes	Yes
2	(U-2) ???? ???????????? ????????? ??????????? ??????? ???????????? - Varma Sikitchiyen Vazhikkattinerimuraigal amtrum Payanpadugal Ethical Guidelines and Therapeutic Applications of Varmam	No	Yes	Yes
3	(U-3) ??????? ????????????????????? ???? ???????????? - Pothuvana Noikurikunangalukku Varama Seyalmuraigal Practical Applications of Varmam for Common Pediatric Symptoms	Yes	Yes	Yes
4	(U-4) ??????? ???????????????? ???? ???????????? - Pothuvana Noinilaikalukku Varmam Seyalmuraigal - Practical Applications of Varmam for Common Pediatric Disorders	Yes	Yes	Yes
(M-11)?????????????? ???????????????? ??????????? Kuzhanthaigalukkaana Pura Maruthuvathin Adiappadaigal (Foundations and Comprehensive External Therapies for Pediatrics) (Marks: Range 5-20)				
1	(U-1) ?????????????? ??????????? – Kuzhanthaikalukkana Puramaruthuvam- Pediatric Pura Maruthuvam	No	Yes	No
2	(U-2) ?????????????? ??????????? ????????? ?????? – Kuzhanthaikalukkana Puramaruthuva Mauraigalin Vagaigal - Types of Siddha External Therapies for Children	Yes	Yes	No

3	(U-3) ???????????? ?????? ??? ???????????? ?????????? ???????? ??????? – Kuzhanthaikalin Narambu Thasai Noigalukkana Puramaruthuva Sikitchai Muraigal - Siddha External Therapies for Neurological and Musculoskeletal Disorders	Yes	Yes	No
4	(U-4) ???????? ????? ???????????? ?????????? ??????? - Udaliyakka Mandala Noinilaikallukana Pura maruthuva Muraigal - Applications of External Therapies for Systemic Diseases	No	Yes	Yes
(M-12)?????????????? ?????????? ?????????? Kuzhanthaigalukkaana Pura Maruthuva Muraigal (Practical Applications and Integration of External Therapies Pediatrics) (Marks: Range 5-20)				
1	(U-1) ????????? ???????????????? ?????????? ??????? - Arivusaar Kuraipadukalukkana Puramaruthuva Muraigal -Applications of External Therapies for Intellectual Disabilities	Yes	Yes	Yes
2	(U-2) ???????????? ????? ??????? ???? ?????????? ??????? - Orunginaintha Siddha matrum Naveena Puramaruthuva Mauraigal -Integrating Siddha Pura Maruthuvam with Modern Pediatrics	Yes	Yes	Yes
3	(U-3) ?????????????? ?????????? ???????????? - Kuzhanthaikalukkana Puramaruthuva Seyalmuraigal -Practical Applications of Pediatric Pura Maruthuvam	Yes	Yes	Yes
4	(U-4) ?????????????? ???????????????? ???????? ??????? ????????? ??????? ?????????? - Kuzhanthaikalukkana Puramaruthuvathil Aaivugal matrum Saandrugal Saarntha Nadaimuraigal -Case Studies and Evidence-Based Practices in Pura Maruthuvam	Yes	Yes	Yes
(M-13)??????? ???? ?????????????? ??????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Virivana Maruthuva Muraigal (Comprehensive Management for Special Children) (Marks: Range 5-20)				
1	(U-1) ??????? ?????????????? ????? ??????? ??????? ???? ????? ?????????? - Sirappu Kuzhanthaikalukkana Kalvi matrum Ulaviyal Samooga Amaippukal -Educational and Psychosocial Support Systems for Special Children	Yes	Yes	Yes
2	(U-2) ??????? ?????????????? ??????? ???????? ????????????- Sirappu Kuzhanthaikalukkana Palthurai Sikitchai Anugumuraigal Multidisciplinary Therapeutic Approaches for Special Children	Yes	Yes	Yes
3	(U-3) ??????? ???????????? ????? ??????? ??????? ??????? ?????????? - Sirappu Kuzhanthaikalil Pulan Matrum Amaippu Saarntha Kuraipadugal - Sensory and Structural Impairments in	Yes	Yes	Yes

	Special Children			
4	(U-4) ?????? ??????? ??? ???????????? ??????? ???????? ??????? – Narambu Matrum Thsai Noigalukkana Virivana Sikitchai Mauraigal - Comprehensive management of Neurological and Muscular Disorders	Yes	Yes	Yes
(M-14)??????? ???? ?????????????? ???????????? ???????? ??????? Sirappu Nilai Kuzhanthaigalukkaana Orunginaintha Maruthuva Muraigal (Integrated Management for Special Children) (Marks: Range 5-20)				
1	(U-1) ?????????? ???????????? ????????? ???????? ??????? ?????? ????????? – Sirappunilai Kuzhanthaikalil Narambiyal Valarchi matrum Nadaththai Kolarugal - Neurodevelopmental and Behavioral Disorders in Special Children	Yes	Yes	Yes
2	(U-2) ?????????? ???????????? ?????????? ??????? ?????? ???????? ???????????? - Sirappunilai Kuzhanthaikalil Arivaatral matrum Nadaththai Savalkalai Nirvagiththal -Management of Cognitive and Behavioral Challenges in Special Children	No	Yes	Yes
3	(U-3) ?????????? ?????????????? ??????? ????? ?? ??????? ????????? - Sirappunilai Kuzhanthaikalukkana Virivana Siddha Nala Maiyaththai Niruvuthal - Establishing a Comprehensive Siddha wellness center for Special Children	No	Yes	Yes
4	(U-4) ?????????? ???????????????? ??????? ??????? ???? ??????? ???????????? - Sirappunilai Kuzhanthaikalin Ulaviyal matrum Marabu Noikalai Parikariththal Management of Complex Psychiatric and Genetic Disorders in Special Children	No	Yes	Yes
(M-15)???????????? ???? ??????? ???? ?????????????? ??????? ????? ??????? Kuzhanthaigalin Udal Matrum Manam Arogiyathirkana Siddhar Yoga Muraigal (Pediatric Yoga for Physical and Mental Development) (Marks: Range 5-15)				
1	(U-1) ?????????????? ??????? ??? ????????? ??????????? - Kuzhanthaigalukkana Siddhar Yogam Muraikalin Adippadaigal Foundations of Siddha Pediatric Yoga	No	Yes	Yes
2	(U-2) ???????????? ???? ???????????????? ??????? ??? ?????????? – Kuzhanthaigalin Udal Arokiyathirkana Yogam Paiyrchigal - Siddha Yoga Practices for Physical Health	No	Yes	Yes
3	(U-3) ???? ??????? ?????? ??????????? ??????? ??? ??????? - Unar matrum Nadaththai Samanilaikkana Siddhar Yogam Muraigal - Siddha Yoga for Emotional and Behavioral Balance	No	Yes	Yes
4	(U-4) ?????????????? ???????????? ??????? ??? ??????? – Kuzhanthaigalukkaana Orunginaintha Yogam Muraigal	No	Yes	No

	- Integrating Yoga with Pediatric Care			
(M-16)???????????? ???? ???????????? ??????? ????? ??????? Kuzhanthaigalin Noi Nilaigalukkana Siddhar Yogam Muraigal (Therapeutic Siddhar Yogam for Pediatric Disorders) (Marks: Range 5-10)				
1	(U-1) ?????? ??????? ???? ???????????? ???????????? ??????? ??? ??????? – Narambu matrum Valarchi Kuraipaattu Noikalukkana Siddhar Yoga Muraigal -Siddha Yoga for Neurological and Developmental Disorders	No	Yes	No
2	(U-2) ????? ??????? ????? ???????? ????? ???????????? ??????? ??? ??????? – Suvasa matrum Iruthaya Irathaasaya Nalathirkana Siddhar Yoga Muraigal -Siddha Yoga for Respiratory and Cardiovascular Health	No	Yes	Yes
3	(U-3) ???? ????? ??????? ??????? ????????????? ?????????????? ??????? ??? ??????? – Seerna Mandala noigal matrum Noiethirppu Arokkiyathirkana Siddhar Yoga Muraigal -Siddha Yoga for Digestive and Immunological Health	No	Yes	No
4	(U-4) ??????? ????????????? ??????? ??? ???????? ???????????? – Kuzhanthai Maruthuvathil Siddhar yogam maruththuva Seyalmuraigal -Practical Application of Siddha Yoga in Pediatric Care	No	Yes	No

S.No	List of Module/Unit	ABQ	SAQ	LAQ
Paper No : 3 (Pediatric dietetics,preventive medicine,pharmacology and entrepreneurship)				
(M-17)?????????????? ????? ???????? ???? ??????? - Kuzhanthaigalukkaana Siddha Maruthuva Unavu Muraigal (Siddha Based Pediatric Nutrition) (Marks: Range 5-15)				
1	(U-1) ??????? ????????????? ????????????? ??????????? - Kuzhanthai Arokiyaththil Ootasathin Adippadaigal - Fundamentals of Nutrition in Pediatric Health	No	Yes	No
2	(U-2) ??????? ????????????? ????????????? ??????????? - Kuzhanthai Arokiyaththil Ootasathin Adippadaigal -Dietary Guidelines for Children of Different Ages	No	Yes	Yes
3	(U-3) ???????????? ????????????? ?????????, ????????? ??????? ????? ??????????? ????? – Kuzhanthaikalin Oottasathil Mooligaigal, Thathukkal matrum Jeeva Porutkalin Pangu -Role of Herbs, Minerals, and Animal Products in Pediatric Nutrition	No	Yes	No
4	(U-4) ???????????? ???????????? ????? ???????? ??????? – Kuzhanthaikalin Noikalukkana Siddha Maruthuva Unavugal Siddha Dietary Management for Pediatric Diseases	No	Yes	Yes
(M-18)???????????? ?????????? ??????? ???? ????????? ????? ???????? ???? ??????? - Kuzhanthaigalin Arogyam Matrum Noi Nilaigalil Siddha Maruthuva Unavu Muraigal (Siddha Based Dietary Practices in Pediatric Health and Diseases) (Marks: Range 5-15)				
1	(U-1) ??????????? ???????????? ???????????? ????? ???????? ???? ??????? – Oottasaththu Kuraipattai Thaduppatharkana Siddha Maruththuva Unavu Muraigal - Siddha Approach to Preventing Malnutrition	No	Yes	Yes
2	(U-2) ???????? ???? ?????????? ????? ???????? ???? ???????????? ????????????? – Vazhakkamana Unavu Muraikaludan Siddha Maruthuva Unavu Muraikalain Orunginaippu - Integration of Siddha and Conventional Dietary Practices	No	Yes	Yes
3	(U-3) ????? ???????? ???? ??????? ????????????? – Siddha Maruthuva Unavu Muraikalai Seiyalpaduthuthal - Practical Implementation of Siddha Dietary Practices	No	Yes	Yes
4	(U-4) ??????? ????????????? ????? ???????? ??????????? ???? ??????? ???????? – Kuzhanthai Maruthuathil Siddha Maruthuva Oottasaththu Unavu Kuriththa Aaivugal Case Studies on Siddha Nutrition in Pediatrics	No	Yes	Yes
(M-19)???????????? ???? ??????? ???? ????????? ????? ????????????? ??????????? - Kuzhanthaigalin Samooga Matrum Noi Thaduppil Siddha Maruthuvathin Adippadaigal (Foundations Community and Preventive Pediatrics in Siddha) (Marks: Range 5-15)				

1	(U-1) ???????????? ???? ??????? ???????????? ????? ?????????? - Kuzhanthaikalin Noi Thaduppu Kotpaattil Siddha Maruthuvam - Principles of Preventive Pediatrics in Siddha	No	Yes	Yes
2	(U-2) ???? ????????????? ????? ???????? ???????????? – Samooga Arokkiyathil Siddha Maruthuva Karuthurukkal - Siddha Concepts of Community Health	No	Yes	No
3	(U-3) ???????????? ?????????? ??????? ???????? ????????????? ????? ?????????? - Kuzhanthaikalin Oottasaththtu matrum Valarchi Kankaanippil Siddha Maruthuvam - Pediatric Nutrition and Growth Monitoring in Siddha	No	Yes	No
4	(U-4) ???? ????????? ??????? ???? ???????????? ????? ???????? ???????????? – Noi Ethirpaatral matrum Noi Thaduppukkanana Siddha Maruthuva Anugumuraigal - Siddha Approaches to Immunization and Disease Prevention	Yes	Yes	No
(M-20)??????????????? ???????? ??????? ???? ????????????? ????? ?????????? Kuzhanthaigalukkaana Maruthuva mattrum Pothu Sugatharathil Siddha Maruthuvam (Clinical Applications and Public Health in Siddha Pediatrics) (Marks: Range 5-20)				
1	(U-1) ??????? ???? ?????????? ????? ???????? ??????? ??????? – Kuzhanthai Paruva Noigalukku Siddha Maruthuva Thaduppu Muraigal - Siddha-based Preventive Therapies for Childhood Diseases	Yes	Yes	Yes
2	(U-2) ??????? ???????????? ???? ?????????? ????? – Kuzhanthai Paramarippil Pothu Sugatharathin Pangu - Public Health Interventions in Pediatric Care	Yes	Yes	Yes
3	(U-3) ??????? ????????????? ????? ???????? ???? ????? ??????? ????????????? – Kuzhanthai Maruthuvathil Siddha Maruthuva Samooga Kalvi matrum Vizhippunarvu - Community Education and Awareness in Siddha Pediatrics	Yes	Yes	Yes
4	(U-4) ????? ??????? ??????? ??????? ???????? ??????? ?????????? – Thesiaya matrum Sarvadesa Kuzhanthai Maruthuva Sugathara Thittangal - National and Global Pediatric Health Programs	Yes	Yes	Yes
(M-21)??????????????? ????? ?????????? - Kuzhanthaigalukkaana Siddha Marunthiyal (Siddha Pharmacology for Pediatrics) (Marks: Range 5-15)				
1	(U-1) ???? ?????????? – Pothu Marunthiyal -General Pharmacology	No	Yes	Yes
2	(U-2) ???????????? ???????? ????? ???????????? ?????????? - Kuzhanthaigalin udaleyakka Mandala Noigalukkana Marunthiyal Pediatric Systemic Pharmacology	No	Yes	Yes

3	(U-3) ?????????????? ????? ???????? ?????????? – Kuzhanthaikalukkana Siddha Maruthuva Marunthiyal - Siddha Pediatric Pharmacology	No	Yes	Yes
4	(U-4) ?????????????? ????? ???????????? ??????, ???? ??????? ??? ????????? – Kuzhanthaikalukkana Siddha Marunthugalil Mooliga, Thathu matrum Jeeva Porutkal -Herbal, Mineral, and Animal Products in Pediatric Formulations	No	Yes	No
(M-22)?????????????? ??????? ?????????? ??????? ???????? ??????? Kuzhanthaigalukkaana Marunthu Seimuraigal Mattrum Sikitchai Muraigal (Siddha Pharmaceutics and Therapeutics for Pediatrics (Marks: Range 5-15)				
1	(U-1) ?????????????? ????? ??? ?????????? - Kuzhanthaikalukkana Siddha Ul Marunthugal -Internal Siddha Formulations for Pediatrics	No	Yes	Yes
2	(U-2) ?????????????? ????? ???? ?????????? - Kuzhanthaikalukkana Siddha Veli Marunthugal - External Siddha Formulations for Pediatrics	No	Yes	Yes
3	(U-3) ?????????????????????? ???? ???????????? ???????? ?????????? – Kuzhanthaikalukkundagum Podhu Noigalukkana Maruthuva Vazhimuraigal -Siddha Treatment Protocol for Common Pediatric Conditions	No	Yes	No
4	(U-4) ?????????????? ????? ?????????? ??????????? – Kuzhanthaikalukkana Siddha Marunthugal Seimuraigal -Practical Preparation of Pediatric Siddha Formulations	No	Yes	No
(M-23)??????? ????? ???????? ?????? ????????? ??????? ????????????? Kuzhanthaigal Siddha Maruthuvamanaigalai Niruvuthal Matrrum Nirvagithal (Establishing and Managing Pediatric Siddha Hospitals) (Marks: Range 5-15)				
1	(U-1) ?????????? ????? ???????????????? ?????????? ??????? ????????????? ???????????? - Kuzhanthaigal Siddha Maruthuvamanaikkana Thittamidal matrum Ulkattamaippai Uruvaakkuthal - Hospital Planning and Infrastructure for Pediatric Siddha Hospitals	No	Yes	Yes
2	(U-2) ?????????? ??????? ??????: QCI, NABH ??????? ???? ??????????? - Angegaram matrum Urimam: QCI, NABH matrum Arasu Vidhimuraigal -Accreditation and Licensing: QCI, NABH, and Government Norms	No	Yes	Yes
3	(U-3) ??????????? ?????????? ????? ?????????? ??????? ???? ????????? ???????? – Maruthuvamanai Thittangalai Sandhai Paduthuthal matrum Nidhi Aadharangali Thirattal - Marketing and Financing Strategies for Hospital Projects	No	Yes	No
4	(U-4) ??????????? ????????????: ?????????????, ????????	No	Yes	No

	??????? ???????? – Maruththuvamanai Seiyalpadugal: Melanmai matrum Valarchi -Hospital Operations: Execution, Management, and Growth			
(M-24)?????? ???????? ????? ??????? ?????????????? ????? ????????? ??????? ???????????Thozhil Munaivil Siddha Kuzhanthai Maruthuvathirkana Puthiya Ukthigal and Vaipugal (Innovation and Oppertunities in Siddha Pediatric Entrepreneurship) (Marks: Range 5-20)				
1	(U-1) ??????? ????????? ??????????? ???????????? ??????? ????? ???????????????? ????????????? - Marunthu Thayarippu Niruvanangalai Uruvaakkuthal matrum Pudhiya Marunthukalukkana Voippugal -Pharmaceutical Development and New Product Opportunities	Yes	Yes	Yes
2	(U-2) ??????????????????, ???? ????????????? ???? ?????????? ??????? ??????????? - Marunthu Porutkal, Unavu Porutkalukkana Arasu Maaniyamgal matrum Oppuththalgal -Government Subsidies and Product Approval for Pharmaceuticals and Foods	Yes	Yes	Yes
3	(U-3) ????? ??????? ???????? ????????????? ???????? ??????? ??????? ????? ????????????? – Siddha Kuzhanthai Maruthuva Porutkalukkana Ettrumadhi matrum Sarvadesa Voippugal -Export Opportunities and Global Market for Siddha Pediatric Products	Yes	Yes	Yes
4	(U-4) ??????? ????? ????????????? ????????? ?????????? – Kuzhanthai Siddha Maruthuvathil Pudhumaiyana Muyarchigal -Innovative Ventures in Pediatric Siddha Care	Yes	Yes	Yes

S.No	List of Module/Unit	ABQ	SAQ	LAQ
Paper No : 4 (Essentials in Pediatrics)				
(M-25)Neonatology, Immunization and Hematology (Marks: Range 5-15)				
1	(U-1) Neonatology in Pediatric Care	No	Yes	No
2	(U-2) Basic Concepts of Immunization	No	Yes	Yes
3	(U-3) Immunization Schedule According to IAP/National Immunization Program	No	Yes	No
4	(U-4) Hematological Disorders	No	Yes	Yes
(M-26)Disorders of Respiratory System and Cardiovascular System (Marks: Range 5-20)				
1	(U-1) Developmental Physiology and Common Respiratory Illness	No	Yes	No
2	(U-2) Respiratory Disorders	Yes	Yes	Yes
3	(U-3) Cardiovascular Disorders	Yes	Yes	Yes
4	(U-4) Congenital Heart Diseases	Yes	Yes	Yes
(M-27)Gastrointestinal system and Renal system (Marks: Range 5-20)				
1	(U-1) Gastrointestinal Disorders	Yes	Yes	Yes
2	(U-2) Hepatobiliary Diseases	No	Yes	Yes
3	(U-3) Disorders of the Kidney	Yes	Yes	Yes
4	(U-4) Disorders of the Urinary Tract	No	Yes	Yes
(M-28)Neurological & Neuromuscular disorders, Musculoskeletal system (Marks: Range 5-20)				
1	(U-1) Neurological Disorders I	Yes	Yes	Yes
2	(U-2) Neurological Disorders II	Yes	Yes	Yes
3	(U-3) Neuromuscular Disorders	Yes	Yes	Yes
4	(U-4) Musculoskeletal Disorders	Yes	Yes	Yes
(M-29)Rheumatology and Infectious diseases (Marks: Range 5-15)				
1	(U-1) Rheumatology	No	Yes	Yes
2	(U-2) Fever and Bacterial Infectious Diseases	No	Yes	Yes
3	(U-3) Viral Infections	No	Yes	Yes
4	(U-4) Protozoal Diseases and Fungal Infections	No	Yes	No
(M-30)Dermatological disorders, Endocrinesystem & Reproductive system (Marks: Range 5-20)				
1	(U-1) Dermatological Disorders	No	Yes	Yes

2	(U-2) Endocrine Disorders I	Yes	Yes	No
3	(U-3) Endocrine Disorders II	Yes	Yes	No
4	(U-4) Reproductive Disorders	No	Yes	Yes
(M-31)Oncology and Metabolic disorders (Marks: Range 5-20)				
1	(U-1) Leukemia and Lymphoma	Yes	Yes	Yes
2	(U-2) Malignant Tumors in Children	Yes	Yes	Yes
3	(U-3) Metabolic Disorders I	No	Yes	No
4	(U-4) Metabolic Disorders II	No	Yes	No
(M-32)Ear, Nose and Throat and Dental Disorders and Ophthalmology (Marks: Range 5-15)				
1	(U-1) ENT Disorders I	No	Yes	Yes
2	(U-2) ENT Disorders II	No	Yes	No
3	(U-3) Pediatric Ophthalmology Disorders	No	Yes	Yes
4	(U-4) Pediatric Dental Disorders	No	Yes	No

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

Instructions for the paper setting.

1. University examination shall have 4 papers of 100 marks.

Each 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. Create Blueprint based on instructions 1 to 7

6 H : Distribution of Practical Exam (University Examination)

S.No	Heads	Marks
1	Long case Case or Procedure / Major Practical Assessment (100 Marks) : This comprehensive long case/procedure assessment is designed to integrate knowledge from all 32 modules of the MD (Siddha Kuzhanthai Maruthuvam) curriculum, spanning Papers P1 to P4. The framework ensures alignment with the program's core learning objectives and provides balanced evaluation across all the domains. It enables holistic assessment of the postgraduate scholar’s clinical knowledge, diagnostic skill, therapeutic reasoning, communication proficiency, research integration, and ethical practice. 1.1 Component 1: History Taking and Interpretation (25 Marks) - This component assesses the student’s ability to gather, analyze, and interpret a detailed case history using both Siddha and modern clinical methodologies. It is further divided into two subsections: 1.1.1 History Gathering (10 Marks): The candidate must demonstrate a structured and complete history-taking approach. This includes collecting prenatal and antenatal details, family medical history, socio-environmental exposures, dietary habits, and hereditary factors. Siddha-based aspects such as evaluation of Muthodam, maternal health alongside modern pediatric considerations like immunization history, growth patterns, and developmental milestones. This integrative approach forms the foundational understanding for effective case diagnosis. 1.1.2 Presentation & Interpretation (15 Marks): This subsection focuses on how the student organizes, presents, and interprets the collected history. Clarity, coherence, and clinical logic are emphasized. The student must correlate signs and symptoms using Siddha diagnostic tools such as Envagai Thervugal and Naadi, while also applying modern clinical reasoning. Interpretation should lead to a justified differential diagnosis, showing the scholar’s ability to synthesize multi-dimensional insights into a cohesive clinical narrative. 1.2. Component 2: Focused Clinical Examination (25 Marks) - This component evaluates the scholar’s hands-on clinical skills, focusing on accurate, system-specific physical examination grounded in both Siddha and modern pediatrics. It is divided into two parts:	100

1.2.1 General Examination (10 Marks): The candidate is expected to perform a thorough general physical examination, assessing vital signs (pulse, temperature, respiration), anthropometric parameters (height, weight, head circumference), and signs of systemic or nutritional deficiencies (pallor, icterus, edema, lymphadenopathy). Siddha techniques like Naadi examination and Neikkuri observation should be applied where appropriate, demonstrating diagnostic accuracy and a holistic understanding of general health.

1.2.2 System-Specific Examination and Assessments (15 Marks): This subsection assesses the ability to perform focused clinical evaluations tailored to the case. For instance, respiratory system complaints require auscultation, percussion, and breathing pattern analysis; neurological cases need motor and reflex testing, cognitive and sensory assessment. The scholar must incorporate Siddha parameters into system-based modern clinical findings. Competence in technique, patient-centered interaction, and safe practice are essential evaluation points.

1.3 Component 3: Diagnosis and Management Integration (25 Marks) - This component emphasizes analytical ability and clinical judgment in formulating diagnosis and treatment strategies that integrate Siddha wisdom and modern medical knowledge. It comprises two subcomponents:

1.3.1 Diagnosis and Differential Diagnosis (10 Marks): The candidate must articulate a precise primary diagnosis supported by clinical reasoning. Siddha insights such as humor imbalance, Kuttram-Pirivu classification, and Envagai Thervugal outcomes should be aligned with modern findings like lab investigations and imaging. Differential diagnoses should be logically prioritized based on severity, likelihood, and consistency with clinical evidence, showing mastery of both diagnostic systems.

1.3.2 Management Plan (15 Marks): Here, the candidate is required to present a comprehensive, evidence-based management plan. This should include appropriate Siddha internal medicines, external therapies and applicable scientific medical managements . The plan must also include preventive and promotive aspects such as Pathiyam (diet), lifestyle recommendations, immunization, and hygiene education. The plan should be logical, individualized, and aligned with the holistic care principles of Siddha pediatrics.

1.4 Component 4: Research, Ethics, and Communication (25 Marks) - This

	component evaluates the scholar's competency in applying research evidence, ethical values, and communication strategies in pediatric clinical care. It is divided into three parts: 1.4.1 Research and Evidence-Based Practice (10 Marks): The scholar should demonstrate the ability to integrate classical Siddha texts and current research evidence into the clinical approach. Recent advancements in Siddha pediatrics, drug standardization, safety profiles, and the application of preventive or immune-enhancing formulations should be discussed with scientific reasoning. The use of research methodology to support therapeutic choices is an essential skill assessed here. 1.4.2 Ethics and Communication (5 Marks): This part evaluates the candidate's professionalism, ethical sensitivity, and ability to engage with caregivers. Key aspects include obtaining informed consent, respecting patient confidentiality, and conveying treatment plans empathetically. Clear explanation of Siddha interventions in a culturally sensitive and understandable way is expected to build trust and cooperation. 1.4.3 Presentation and Discussion (10 Marks): In the final component, the candidate presents the case in a structured and coherent manner, ideally with the support of visual tools such as charts, flow diagrams, or multimedia. Presentation clarity, logical sequencing, time management, and response to examiner queries are assessed. The scholar must defend the diagnostic rationale and therapeutic approach with confidence, referencing both Siddha principles and modern clinical justifications.	
2	Examination Procedure for Short Case / Procedure / Minor Practical Assessment (50 Marks) This assessment evaluates the postgraduate scholar's integrated knowledge and application across all 32 modules of the MD (Siddha) – Kuzhanthai Maruthuvam curriculum. It ensures a balanced evaluation across clinical reasoning, Siddha diagnostics, therapeutic planning, communication, procedural execution, ethics, and professional conduct. The assessment is not limited to conventional clinical case presentations. Candidates may be asked to perform Siddha procedures, prepare formulations,	50

	simulate pediatric interventions, or demonstrate therapies using models, charts, or virtual tools. Skill stations, reflective portfolios, and simulation-based assessments may also be employed for evaluation. These approaches enable comprehensive appraisal across practical domains. Students are expected to demonstrate diagnostic logic, procedural accuracy, formulation selection, and patient-specific Siddha treatment planning. Emphasis is placed on safety, hygiene, therapeutic reasoning, effective communication, and adherence to ethical principles in pediatric care. Examiners will select two or more minor procedures or short practicals from the syllabus, ensuring relevance and alignment with learning outcomes. Examples include Naadi-based diagnosis, abdominal massage, Siddha Yoga routines, Pugai therapy, Varmam stimulation, nutritional planning, pediatric formulation demonstration, neonatal counseling, and simulated teleconsultations. The 50-mark assessment is distributed equally across five key areas: procedural understanding and analytical reasoning (10 marks), skill execution and technical accuracy (10 marks), Siddha-based therapeutic planning (10 marks), communication and instruction delivery (10 marks), and ethics, safety, and professional conduct (10 marks), ensuring comprehensive evaluation of student competence. This assessment encourages scholars to demonstrate multidisciplinary capabilities across Siddha pediatrics, integrating traditional principles with clinical application in a structured, practice-oriented manner.	
3	Spotters (50 Marks) The Spotters assessment is a structured evaluation tool that assesses the integrated theoretical and clinical knowledge of the postgraduate scholar across all 32 modules of the MD (Siddha Kuzhanthai Maruthuvam) program (Papers P1 to P4). This method tests visual identification, interpretation, and application of core concepts relevant to Siddha pediatrics, combining classical insights with modern clinical relevance. The objective is to ensure broad-based domain coverage, focusing on diagnostic skills, Siddha therapeutic recognition, formulation	50

	knowledge, procedural identification, and visual cues relevant to pediatric care. These Spotters can include clinical images, Siddha medicines, diagnostic tools, traditional herbs, therapeutic procedures, yoga postures, diagnostic charts, pediatric formulations, Varmam points, X-rays, CT/MRI images, and equipment or kits relevant to children's healthcare. The student is expected to observe, recognize, and respond to each Spotter within a time-bound format. Responses must demonstrate concise identification, relevance to pediatric Siddha care, associated therapeutic applications, and, where applicable, integration with modern clinical practices. A well-structured answer may include name, diagnosis, Siddha classification, relevant therapeutic uses, dosage/formulation, or procedural application. This assessment allows for a variety of visual and simulated formats such as flashcards, printed charts, labelled specimens, instruments, herbs, or images displayed on screen or physical models. The examiner shall choose Spotters from across all four papers ensuring equitable representation of modules. Assessment domains include recall, interpretation, procedural insight, and applied knowledge. Mark Distribution (50 Marks): Each student will be assessed using a minimum of 5 Spotters, with each Spotter valued at 10 marks, for a total of 50 marks. Evaluation for each Spotter includes three components: identification accuracy (4 marks), clinical or Siddha relevance (4 marks), and logical interpretation or application (2 marks). All Spotters must align with the core competencies and learning outcomes specified in the MD (Siddha Kuzhanthai Maruthuvam) curriculum.	
4	Assessing Teaching Ability – 25 Marks The Teaching Ability examination is designed to assess a postgraduate scholar's competency in structured, effective, and engaging classroom teaching within the domain of MD (Siddha Kuzhanthai Maruthuvam). A panel of four examiners—including both internal and external subject experts—will conduct the assessment to ensure a balanced and unbiased evaluation. Each candidate will draw a topic by lot from a pool of pre-approved topics that collectively represent the breadth of all four syllabus papers (P1 to P4). The lot system ensures fairness and unpredictability, simulating real-time academic challenges. Once a topic is	25

	selected, the candidate will receive a minimum of one hour for preparation. They must then deliver a concise 10-minute lecture simulating a real teaching scenario, using appropriate teaching aids such as a blackboard, chart, or PowerPoint presentation. The candidate will be evaluated on five essential parameters: Accuracy and depth of subject content (5 marks), logical organization and sequence (5 marks), effective use of teaching aids (5 marks), pedagogical method and student engagement (5 marks), and ability to handle questions confidently (5 marks), totaling 25 marks. A standardized scoring rubric will guide the assessment process, and constructive feedback may be provided to support professional growth in academic teaching roles.	
5	Assessing Presentation Skills – 25 Marks The Presentation Skills assessment aims to evaluate a postgraduate scholar's ability to effectively communicate academic or scientific content using digital tools, with emphasis on professionalism, clarity, and audience engagement. Each candidate will draw a separate topic through a lot system from a second pool of pre-approved topics prepared by the panel of four examiners. This topic will be different from the one used for Teaching Ability and will comprehensively cover the MD (Siddha Kuzhanthai Maruthuvam) syllabus (P1 to P4). After drawing the topic, the candidate will be given at least one hour for preparation. The candidate must then deliver a structured PowerPoint presentation of 10–12 minutes. Evaluation will be based on five critical parameters: clarity of speech and effective communication (5 marks), confidence and voice modulation (5 marks), appropriate use of body language and audience engagement (5 marks), design and relevance of slide content (5 marks), and efficient time management (5 marks), totaling 25 marks. The panel of four examiners—including internal and external experts—will assess the candidate using a standardized rubric to ensure consistency and objectivity. This exercise simulates professional settings such as seminars, conferences, or CME programs, encouraging scholars to develop excellent presentation skills, academic confidence, and scientific articulation.	25
6	Viva (4 examiners: 25 marks/each examiner)# There will be four examiners assigned to assess the student's knowledge across all four papers. Each examiner will award a maximum of 25 marks, totaling 100 marks. Examiner 01: This examiner shall assess the student's knowledge outlined in Paper 1, covering Modules 1 to 8.	100

	Examiner 02: This examiner will conduct the viva for Paper 2, which spans Modules 9 to 16. Examiner 03 : This examiner is responsible for assessing content from Paper 3, which includes Modules 17 to 24. Examiner 04 : The fourth examiner shall assess the student's knowledge from Paper 4, covering Modules 25 to 32.	
7	Logbook (Activity Record) Assessment – 25 Marks: Each student is required to submit four separate logbooks, one corresponding to each paper (Paper 1, Paper 2, Paper 3, and Paper 4).	25
8	Practical/Clinical Record Assessment – 25 Marks: Each student is required to submit four practical/clinical record books, corresponding to each paper (Paper 1, 2, 3, and 4). Each record book must contain a minimum of 25 Practical/Clinical Record Assessments.	25
Total Marks		**400**

#No separate marks for dissertation viva.

Reference Books/ Resources

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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		
		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		