

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

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**Semester II
Applied Basics of Pothu Maruthuvam
(General Medicine)
(SUBJECT CODE : SIDPG-AB-M)**

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



**BOARD OF UNANI, SIDDHA AND SOWA-RIGPA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110026**

PREFACE

The Siddha System of medicine is a rich and ancient tradition that focuses on promoting physical and psychological well-being, with an emphasis on preventing illness and ensuring longevity of life. It offers a holistic approach to healthcare that incorporates traditional wisdom with modern scientific advancements.

The postgraduate syllabus in Siddha medicine has been carefully crafted to provide students with a comprehensive understanding of the various aspects of this ancient healing tradition. Students will delve deep into the teachings of the Siddhars, exploring texts such as the Thirumandiram and gaining a more profound understanding of key concepts like Iyum Bootham, Mukkutram, Suvai, and Veeriyam. By studying these principles, students will learn how to choose the right herbs and treatments for different diseases, drawing on the wisdom of the Siddhars to craft personalized medicine plans for their patients. In addition to theoretical knowledge, students will also receive practical training in Siddha diagnostic methods, including Envagai thervu, and will learn how to diagnose and treat common ailments such as Vali, Azhal, and Iyam imbalances.

Clinical case studies will provide real-world examples of how Siddha medicine can be applied in practice, helping students to develop the skills they need to become competent practitioners in the field. Furthermore, the syllabus also covers topics such as pharmacology, personalized medicine, and healthcare management, equipping students with the knowledge and skills they need to succeed in a rapidly evolving healthcare landscape. As Siddha medicine continues to gain recognition and acceptance, graduates of this program will be well-positioned to make a positive impact in the field, whether as practitioners, researchers, educators, or entrepreneurs.

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

-Swami Vivekananda

NCISM

(NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE)

Competency-Based Dynamic Curriculum MD/ MS SIDDHA

Applied Basics of Pothu Maruthuvam (SIDPG-AB-M)

Summary & Credit Framework

Semester II

Module Number & Name	Credits	Notional Learning Hours	Maximum Marks of assessment of modules (Formative Assessment)
M1. Basic principles	2	60	50
M2. Three Humoral Theory: Vali, Azhal and Iyam	2	60	50
M3. Siddha Physiology: Uyiranal, Udal Thee, Udal Vanmai, Udal Thathukkal, 14 Vegangal & Yaakkai Ilakkanam	2	60	50
M4. Siddha Diagnostic and Prognostic Methods	2	60	50
M5. Siddha Dietetics, Lifestyle and Medical Ethics	2	60	50
M6. Common Siddha Formulations and External Therapies	2	60	50
M7. Clinical Examinations, Other Traditional Systems and Health Programmes	2	60	50
M8. Modern Diagnostic Methods	2	60	50
	16	480	400

Credit frame work

SIDPG-AB-M consists of 8 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

Important Note: The User Manual MD/MS 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. In case of difficulty and questions regarding the curriculum, write to syllabus24sid@ncismindia.org.

Course Code and Name of Course

Course code	Name of Course
SIDPG-AB-M	Applied Basics of Pothu Maruthuvam (General Medicine)

Table 1 : Course learning outcomes and mapped Program learning outcomes

CO No	A1 Course learning Outcomes (CO) SIDPG-AB-M At the end of the course SIDPG-AB-M, the students should be able to-	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Demonstrate the Siddha principles and concepts with contemporary sciences and advancements for scientific explorations.	PO1,PO4,PO5
CO2	Describe elaborately the diseases which comes under Vali, Azhal, Iyam from various ancient Siddha text references and plan the line of treatment to contribute sustainable and holistic health care solutions by applying Siddha principles in global health care perspectives.	PO1,PO2,PO3
CO3	Demonstrate a broad understanding of investigation, diagnosis and treatment of prevalent acute and chronic medical conditions based on Siddha basic principles along with the contemporary methodical and technological advances in medicine and Emergency management in Siddha.	PO1,PO2,PO4,PO5,P O6
CO4	Prescribe evidence-based medicine confidently by learning internal and external Siddha medicines with special emphasis on higher order medicines and choose the medicines in a personalised approach, based on siddha basic principles and pharmaco-therapeutics of the drug through integrated scholarly innovations for understanding and expansion of siddha medicine globally.	PO2,PO4,PO7
CO5	Recommend suitable dietary advice, life style modifications, pranayamam and yogasanas for prevention, management and rehabilitation of the diseases, promotion of well-being, facilitating the reach of health program benefits to public by educating them and maintaining medical records.	PO2,PO3,PO5
CO6	Apply fundamental knowledge on Pharmacodynamics and pharmacokinetics for clinical evaluation of Siddha formulations, Siddha genomics and apply updated knowledge in research studies.	PO4,PO5,PO7
CO7	Demonstrate professionalism and ethics, collaborate with health care teams, translate the Siddha ancient literatures including manuscripts contribute to medical education and scholarship, entrepreneurship skills.	PO2,PO4,PO5,PO6,P O7,PO8

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

2A Module Number	2B Module & units	2C Number of Credits	Notional Learning Hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
1	M-1 Basic principles This module deals with <i>Iymbootham</i> (five elements)–correlation of <i>Iymbootham</i> (five elements) with <i>Mukkutram –Arusuvaigal</i> (Six tastes), <i>Suvai</i> (Taste), <i>Veeriyam</i> (Potency), 96 <i>Thathuvam</i>, <i>Karu urpatthi</i> (Embryogenesis), <i>Saram</i> (Respiration). • M1U1 Iymboothangal (Five elements), Karu urpatthi (Embryogenesis) & Saram (Respiration) 1.1.1. <i>Iymbootham</i> (Five elements) 1.1.2. Relationship between <i>Iymboothangal</i> and <i>Iymporigal & Iympulangal</i> 1.1.3. <i>Panchabhootha Panchaekaranam</i> (Creation of five elements) 1.1.4. Recognizing <i>Iymboothangal</i> through colour 1.1.5. <i>Thegam Panchabootham</i> (Manifestation of <i>Iymbootham</i> (five elements) in our body) 1.1.6. <i>Iymbootha koorupaattaiyudaiya porulgalin panbugal</i> (Characteristics of things consists of five elements) 1.1.7. Correlation of <i>Panchabootham</i> (five elements) with <i>Mukkutram</i> (<i>Vali</i>, <i>Azhal</i> and <i>Iyam</i>) and <i>Arusuvaigal</i> (Six tastes) 1.1.8. <i>Karu urpatthi</i> (Embryogenesis), Role of <i>Iymboothangal</i> in <i>Karu urpatthi</i> (Embryogenesis) 1.1.9. <i>Saram</i> (Respiration) and its details	2	10	20	30	60

• **M1U2 Suvaigal (Taste) and Veeriyam (potency) and their therapeutic application**

- 1.2.1. Details of *Suvaigal* (Tastes) & *Veeriyam* (potency)
- 1.2.2. Relationship between *Iymboothangal* (five elements) and *Suvaigal* (tastes)
- 1.2.3. Characters of *Arusuvaigal* (six tastes)
- 1.2.4. *Suvai* - *Thanmai*, *Nargunam*, *Theegunam*
- 1.2.5. Interrelationship between five elements, six tastes and three humours and abnormalities during their derangements
- 1.2.6 Tastes augmenting and balancing Thirithodam

• **M1U3 96 Thathuvam - Muthal Thathuvam**

- 1.3.1. *Bootham* – 5
- 1.3.2. *Pori* – 5
- 1.3.3. *Pulan* - 5
- 1.3.4. *Kanmenthiriyam* - 5
- 1.3.5. *Kanmavidayam* - 5
- 1.3.6. *Karanam* - 4
- 1.3.7. *Arivu* - 1

• **M1U4 96 Thathuvam - Irandam Thathuvam**

- 1.4.1. *Naadi* – 10
- 1.4.2. *Vaayu* – 10
- 1.4.3. *Aasayangal* – 5
- 1.4.4. *Kosam* – 5

	• M1U5 96 Thathuvam - Moondram Thathuvam 1.5.1. <i>Aadhaaram</i> – 6 1.5.2. <i>Mandalam</i> – 3 1.5.3. <i>Malam</i> – 3 1.5.4. <i>Thodam</i> – 3 1.5.5. <i>Edanai</i> – 3 1.5.6. <i>Gunam</i> – 3 1.5.7. <i>Raagam</i> – 8 1.5.8. <i>Vinai</i> – 2 1.5.9. <i>Avatthai</i> - 5					
2	M-2 Three Humoral Theory: Vali, Azhal and Iyam This module deals with the formation and functions of the <i>Uyir thathukkal</i> (three humours -<i>Vali, Azhal, Iyam</i>), their dominant locations, functional variations, and their inequilibrium state, exploring concepts like <i>thannilai valarchi</i>, <i>vetrunilai valarchi</i>, and the six Qualities due to thriving & antagonistic qualities essential for restoring equilibrium and health. • M2U1 Exploring the characteristics of three humours 2.1.1. Interrelationship between <i>Mukkutram</i> and <i>Arusuvaigal</i>. 2.1.2. Interrelationship between <i>Mutthodam</i> and <i>Udal Thathukkal</i> 2.1.3. Interrelationship between <i>Mutthodam</i> and <i>Malam</i> (<i>Malam, Siruneer & Viyarvai</i>) 2.1.4. Interrelationship between <i>Mutthodam</i> and <i>Mukkunam</i> 2.1.5. Characteristics of <i>Mutthodam</i>. <i>Mutthodangalum vanmaiadaiyum nilaiyil velippadum 6 gunangal</i> (Qualities exhibit due to thriving <i>Vali, Azhal</i> and <i>Iyam</i>)	2	10	20	30	60

2.1.6. *Mutthodangalin vanmaiai neekakoodiya 6 ethir gunangal* (Antagonistic qualities to balance the thrived *Vali*, *Azhal* and *Iyam*)

• **M2U2 Vali / Vatham**

2.2.1 Shape

2.2.2. Dominant locations

2.2.3. Characteristics

2.2.4. Functions

2.2.5. Types

2.2.6. *Migu gunam & kurai gunam* (increased & decreased features)

2.2.7. *Vali vanmai adaiyum podhu undaagum gunangal & adhanai neekum ethir gunangal*

2.2.8. *Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal.*

• **M2U3 Azhal / Pitham**

2.3.1 Shape

2.3.2. Dominant locations

2.3.3. Characteristics

2.3.4. Functions

2.3.5. Types

2.3.6. *Migu gunam & kurai gunam* (increased & decreased features)

2.3.7. *Azhal vanmai adaiyum podhu undaagum gunangal & adhanai neekum ethir gunangal*

2.3.8. *Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal.*

• **M2U4 Iyam / Kabam**

	2.4.1 Shape 2.4.2. Dominant locations 2.4.3. Characteristics 2.4.4. Functions 2.4.5. Types 2.4.6. <i>Migu gunam & kurai gunam</i> (increased & decreased features) 2.4.7. <i>Iyam vanmai adaiyum podhu undaagum gunangal & adhanai neekum ethir gunangal</i> 2.4.8. <i>Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal</i> • M2U5 Vali / Vatham, Azhal / Pitham and Iyam / Kabam 2.5.1. <i>Vali, Azhal and Iyam</i> - Dominant locations–characteristics, functions, Types, <i>Migu gunam, kurai gunam</i> (increased & decreased features) <i>Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal</i>.					
3	M-3 Siddha Physiology: Uyiranal, Udal Thee, Udal Vanmai, Udal Thathukkal, 14 Vegangal & Yaakkai Ilakkanam This module contains details of <i>Uyiranal</i> (Basal fire for survival), <i>Udal Thee</i> (digestive fire), and the concepts of <i>Mandham</i> (weakened digestion) and <i>Udal Vanmai</i> (body strength- immunity), <i>Udal thathukkal</i> (seven physical constituents), <i>14 vegangal</i> (14 Natural urges) and <i>Yaakai ilakkanam</i> (Body constitution) • M3U1 Uyiranal, Udal thee and Udal Vanmai 3.1.1. <i>Uyiranal</i> 3.1.2. <i>Udal thee</i> and its types 3.1.3. Interrelationship between <i>Mukkutram</i> and <i>Udal thee</i>	2	10	20	30	60

3.1.4. *Udal Vanmai* and its types

• **M3U2 Udal Thathukkal (Seven Physical constituents)**

3.2.1. Details of *Udal thathukkal* and their functions/characteristics

3.2.2. *Migu gunam* and *kurai gunam* (increased and decreased characters)

3.2.3. Interrelationship between *Udal thathukkal* (Seven physical constituents) and *Mutthodam* (*Vali, Azhal & Iyam*)

• **M3U3 Yaakkai ilakkanam (Body constitution)**

3.3.1. Types of Yaakkai

• **M3U4 14 vegangal (Fourteen Natural Urges) and Physiological reflexes**

3.4.1. Names of 14 natural urges

3.4.2. *Abaana vaayu*

3.4.3. *Thummal*

3.4.4. *Siruneer*

3.4.5. *Malam*

3.4.6. *Kottaavi*

3.4.7. *Pasi*

3.4.8. *Neer vetkai*

3.4.9. *Kaasam*

3.4.10. *Ilaippu*

3.4.11. *Nitthirai*

3.4.12. *Vaanthi*

3.4.13. *Vizhi Neer*

3.4.14. *Sukkilam*

	3.4.15. Swaasam 3.4.16. Physiological reflexes					
4	M-4 Siddha Diagnostic and Prognostic Methods This module explores <i>Therayar Pinigalin mudhal kaaranam</i> , <i>Saathiya</i> and <i>asaathiya naadi</i> and <i>Marana kurikunangal</i> , <i>Envagai thervu</i> (Eight diagnostic tools) and <i>Kirumigal</i> and <i>Ottu noigal</i> (worm infestations and infectious diseases). • M4U1 Siddha etiology and pathology of diseases 4.1.1. <i>Theraiyar Pinigalin Mutharkaranam</i> 4.1.2. <i>Thodakurikunangal</i> (Complicated signs & symptoms), and their details 4.1.3. <i>Kirumigal</i> and <i>Ottu Noikal</i> (Worms and infectious diseases) • M4U2 Envagai thervu 4.2.1. Details of <i>Envagai thervu</i> (Eightfold diagnostic method) which includes examination of <i>Naadi</i> , <i>Sparisam</i> , <i>Naa</i> , <i>Niram</i> , <i>Mozhi</i> , <i>Vizhi</i> , <i>Malam</i> and <i>Moothiram</i> . 4.2.2 <i>Naadi</i> : Definition– locations– pulseratio – <i>Vali</i> , <i>Azhal</i> & <i>Iyam</i> , <i>Naadi</i> –pulse variation according to time & season– <i>Boothanaadi</i> – <i>Guru Naadi</i> – Preponderant period of <i>Vali</i> , <i>Azhal</i> and <i>Iya naadi</i> – <i>Vali</i> , <i>Azhal</i> , <i>Iyam</i> and <i>Thondha Naadi Migu Kurai kurikunangal</i> , <i>Saathya</i> - <i>Asaathya Naadi</i> 4.2.3. Urine examination– <i>Neerkuri</i> , <i>Nirakuri</i> & <i>Neikuri</i> – According to <i>Theraiyar</i> and other <i>Siddhars</i>	2	10	20	30	60

	• M4U3 Manikadai Nool 4.3.1. Details of <i>Manikadai nool</i> • M4U4 Prognosis and Fatal Signs in Siddha Medicine 4.4.1. Determine the fatal conditions of an individual based on <i>Vaineer / Ecchil</i> (Saliva), <i>Suvai</i> (Taste), <i>Oli</i> (Voice), <i>Kan</i> (Appearance of eye), <i>Kaadhu</i> (Appearance of ear), <i>Manam</i> (Smell), <i>Sukkilam</i> (Quality of semen) and <i>Uruppukalin Thudippu</i> (twitching). 4.4.2. <i>Thodakurigunangal</i> and <i>Marana Kuri Kunangal</i> 4.4.3. Prognosis of a disease based on some tests performed by breast milk, Pig's fat and blood of the diseased. 4.4.4. <i>Avathaikal</i> 4.4.5. <i>Thoothuvan ilakkanam</i>					
5	M-5 Siddha Dietetics, Lifestyle and Medical Ethics This module contains <i>Siddha</i> dietary recommendations and restrictions for imbalanced humours and body temperament, general dietary recommendations, dietary recommendations for <i>perumpozhudhu</i> (Season) and <i>sirupozhudhu</i>, <i>Naal ozhukkam</i> (Daily routines) and <i>Therayar Pini anuga vithi</i>. • M5U1 Siddha diet for Mukktram 5.1.1. Siddha diet for <i>Vali/vatham</i>, <i>Azhal/Pitham</i> & <i>Iyam/Kabam</i> diseases 5.1.2. <i>Satthuva</i>, <i>Raso</i> & <i>Thamo guna porulgal</i> 5.1.3. <i>Vaatha</i>, <i>pitha</i> & <i>kaba noiyai neekum porulgal</i>, <i>Piththathai</i>, <i>samapaduthum porulgal</i>,	2	10	20	30	60

5.1.4. *Uppu, kari, keerai, rasam, vatral, oorugaai vagaigal for vali, azhal and iya dhegigal.*

• **M5U2 Pathiyam muraigal**

5.2.1. *Icchaapathiyam, Kadumpathiyam, Migu kadum pathiyam*

5.2.2. *Pathiyam for vatham, pitham and kabam diseases*

5.2.3. *Thiridhodathai sampaduthum porulgal*

5.2.4. *Iraichi vagaigalul pathiya abathiyam*

5.2.5. *Bogar pathiya murai, Marunthunnumbodhu abathiyam*

5.2.6. *Neervaazhavanavatrul pathiya abathiyam*

5.2.7. *Surathirku aagaatha patharthangal, athisaaram kiraani muthiya noigalukku pathiyam, apathiyam, Moolaroga pathiyam, Nanjai murikkum porulgal*

5.2.8. *Kuliyal thaila pathiyam*

• **M5U3 Kaala ozhukkam**

5.3.1. Diet for *perumpozhuthugal* (Seasons).

• **M5U4 Naal ozhukkam and Pini anuga vidhi**

5.4.1. *Kuliyal thaila pathiyam Appiyanganam- Pasu nei muzhukku, Pancha karpam, Aagum & aaga porul during oil bath, icchapathiyam, uppilla pathiyam, Thailai muzhukkirkku thagaathavargal.*

5.4.2. *Kankalukku anjanam*

5.4.3. *Athikaalai vizhippin gunam*

5.4.4. *Vizhitha udan paarkathakka & paarkathagaatha porulgal*

	5.4.5. <i>Naal ozhukkam</i> (Daily routines) 5.4.6. <i>Pini Anuga Vidhi</i> • M5U5 Medical ethics, common laws and regulations applicable to clinical practice 5.5.1. Medical ethics, common laws and regulations applicable to clinical practice					
6	M-6 Common Siddha Formulations and External Therapies This module contains common <i>Siddha</i> internal medicines used in the treatment. It also contains details about external medicines mentioned in the <i>Siddha</i> literature. • M6U1 Aga Marunthugal Part I 6.1.1. <i>Kudineer</i> (Decoction): <i>Kabasura kudineer, Nilavembu kudineer, Mandoorathy kudineer, Nerunil kudineer.</i> 6.1.2. <i>Vadagam</i> (Lozenge / troche): <i>Inji Vadagam, Thalishathi vadagam</i> 6.1.3. <i>Chooranam</i> (Powder): <i>Ashtathy Chooranam, Amukkara chooranam, Ilavangathy chooranam, Elathy chooranam, Kazharchi chooranam, Thayir chundi chooranam, Thalishathy Chooranam, Nilavagai chooranam, Pancha deepakini chooranam, Parangippattai chooranam, Seeraga Chooranam, Venthamarai Chooranam, Seenthil Chooranam, Sagala Noi chooranam, Drakshadhi chooranam</i> 6.1.4. <i>Nei</i> (Medicated Ghee): <i>Adathodai nei, Brahmi nei, Senkottai nei, Thanneer vittan nei, Thoothuvalai nei, Vallarai nei</i> 6.1.5. <i>Dravagam/Theeneer</i> (Distilled extracts) : <i>Sanka dravagam, Oma theeneer, Sombu theeneer</i>	2	10	20	30	60

6.1.6. *Rasayanam* (Dry Confection): *Thippili rasayanam, Gandhaka rasayanam, Parangipattai rasayanam*
 6.1.7. *Ilagam* (Electuary) : *Amukkara Ilagam, Karunai Ilagam, Thetran kottai Ilagam, Vilvathy Ilagam, Venpoosani Ilagam, Mahavallathi Ilagam*
 6.1.8. *Maathirai* (Pills / Tablet) : *Karuppu Vishnu Chakkara mathirai, Santha chandhrodhaya mathirai, Chithiramoola kuligai, Neerkovai mathirai, Brammanandha bairavam, Vasantha kusumakara mathirai, Swasakudori mathirai, Amirthadhi mathirai, Jalodhaari mani, Soolai kudoram, Vadha ratchasan mathirai*

• **M6U2 Aga Marunthugal Part II**

6.2.1. *Ennai/Thailam* (Medicated oil): *Kazharchi thailam, Siddhathi ennai, Arakku thailam, Chithiramoola thailam, Chitramutti thailam, Chukku thailam, Ulunthu thailam, Sivappu kukkil thailam, Peenisa thailam, Vadhakesari thailam, Laguvidamutti thailam, Mayana thailam*
 6.2.2. *Mezhugu* (Medicinal wax): *Rasaganthi mezhugu, Idivallathy mezhugu, Gunmakudori mezhugu, Nandhi mezhugu, Nava uppu mezhugu*
 6.2.3. *Kuzhambu* (Medicated semisolid mixture): *Agasthiyar kuzhambu*
 6.2.4. *Pathangam* (Sublimate): *Parangipattai pathangam, Thirumoorthi pathangam*
 6.2.5. *Karpam* : *Irunelli karpam, Ayabringaraja karpam*
 6.2.6. *Parpam* (Calcined oxide): *Kukil parpam, Sangu parpam, Silasathu parpam, Nandukkal parpam, Palagarai parpam, Pavala parpam, Muthuchippi parpam*
 6.2.7. *Chendhooram* (Calcined red oxide) : *Arumuga chendhooram, Aya kantha chendhooram, Annabedhi chendhooram, Chandamarutha chendhooram, Gowri chinthamani chendhooram, Sivanar amirtham, Padigalinga chendhooram, Jala manjari*
 6.2.8. *Karuppu*: *Kasthuri karuppu, Pattu karuppu, Thalaga karuppu*

• **M6U3 Pura marunthugal and pura maruthuva muraigal Part I**

- 6.3.1. *Kattu* (Dressing or bandaging)
- 6.3.2. *Pattru* (Poultice)
- 6.3.3. *Ottradam* (Fomentation)
- 6.3.4. *Poochu* (Topical application)
- 6.3.5. *Vethu* (Inhalation or exposure to steam)
- 6.3.6. *Pottanam* (Medicated pouches)
- 6.3.7. *Kali* (Paste)
- 6.3.8. *Pugai* (Fumigation)
- 6.3.9. *Mai* (Corrylium)
- 6.3.10. *Podi thimirthal* (Powder anointing / Powder smearing)
- 6.3.11. *Kalikkam* (Eye drops)
- 6.3.12. *Nasiyam* (Nasal drops)
- 6.3.13. *Oothal* (Blowing)
- 6.3.14. *Naasikaabaranam* (Inhalation or exposure to steam)
- 6.3.15. *Kalimbu* (Ointment)
- 6.3.16. *Seelai* (Medicated guaze / Plaster)

• **M6U4 Pura marunthugal and pura maruthuva muraigal Part II**

- 6.4.1. *Neer* (Medicated water)
- 6.4.2. *Vartti* (Medicated wick)
- 6.4.3. *Suttigai* (Cauterization)
- 6.4.4. *Salaakai idal* (Probing)
- 6.4.5. *Pasai* (Ointment / cream)
- 6.4.6. *Thokkanam* (Massage therapy)
- 6.4.7. *Podi* (Dusting powder)
- 6.4.8. *Murichal* (Therapeutic fracture manipulation)
- 6.4.9. *Keeral* (Incision)
- 6.4.10. *Kaaram* (Caustic ablation)

	6.4.11. <i>Attai Vidal</i> (Leech therapy) 6.4.12. <i>Aruvai Sikitchai</i> (Surgical procedures) 6.4.13. <i>Kombu Kattal</i> (Bone setting) 6.4.14. <i>Urinchal</i> (Suction / Aspiration) 6.4.15. <i>Kuruthi vangal</i> (Blood-letting) 6.4.16. <i>Peechu</i> (Enema)					
7	M-7 Clinical Examinations, Other Traditional Systems and Health Programmes This module covers clinical examinations across major systems of the body and explores the principles, diagnostic and therapeutic approaches of Homeopathy, Unani, Ayurveda, Sowa Rigpa, Yoga, Naturopathy, Traditional chinese medicine and their relevance with Siddha medicine and various health programs relevant to Ayush. • M7U1 Modern clinical examinations 7.1.1. General clinical examination 7.1.2. Examination of the Respiratory system 7.1.3. Examination of the Gastrointestinal System 7.1.4. Examination of the Cardiovascular system 7.1.5. Examination of Nervous System 7.1.6. Examination of Endocrine system 7.1.7. Examination of Locomotor system • M7U2 Introduction of the basic principles of Homeopathy, Unani, Ayurveda, Sowa Rigpa, Yoga and Naturopathy and their relevance in light of the basic principles of Siddha medicine.	2	10	20	30	60

	7.2.1. Basic principles and therapeutic approaches of Homeopathy, Unani, Ayurveda, Sowa Rigpa, Yoga and Naturopathy, Traditional Chinese Medicine and their relevance with the basic principles of Siddha medicine • M7U3 Health Programmes / Govt initiatives with relevant to Ayush 7.3.1. National Ayush Mission: ◦ National Program for Prevention and Management of Osteoarthritis & other Musculoskeletal Disorders ◦ Integration of AYUSH with National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) ◦ SUPRAJA: AYUSH Maternal & Neo-natal Intervention ◦ VAYO MITRA: AYUSH Geriatric Healthcare Services ◦ AYURVIDYA: Healthy lifestyle through AYUSH for School Children ◦ AYUSH Mobile Medical Unit ◦ KARUNYA: AYUSH Palliative Services ◦ National Programme on AYUSH for Morbidity Management and Disability Prevention (MMDP) of Lymphatic Filariasis (Lymphedema) 7.3.2. Magapperu Sanjeevi Kit, Ilam Thalir Thittam, Tribal mobile unit of Tamilnadu 7.3.3. Magalir Jyothi project of Kerala					
8	M-8 Modern Diagnostic Methods This module contains various modern diagnostic techniques, which includes complete	2	10	20	30	60

clinical lab investigations, ECG, PFT, Nerve Conduction Study, EMG, and EEG, radiology and nuclear medicine

• **M8U1 Haematological investigations**

- 8.1.1. Complete Blood Count
- 8.1.2. Blood grouping and blood transfusion
- 8.1.3. Peripheral Blood Smear
- 8.1.4. Erythrocyte Sedimentation Rate
- 8.1.5. Reticulocyte Count
- 8.1.6. Bone Marrow Examination
- 8.1.7. Coagulation Studies
- 8.1.8. Hemoglobin Electrophoresis
- 8.1.9. Iron Studies
- 8.1.10. Vitamin B12 and Folate Levels
- 8.1.11. Direct and Indirect Coombs Test
- 8.1.12. Leukemia/Lymphoma Panel

• **M8U2 Biochemical investigations**

- 8.2.1. General Metabolic Tests
 - 8.2.1.1. Blood Glucose (Fasting, Postprandial, Random)
 - 8.2.1.2 Glycated Hemoglobin (HbA1c)
 - 8.2.1.3. Serum Electrolytes
 - 8.2.1.4. Liver Function Tests (LFTs)
- 8.2.3. Kidney Function Tests
- 8.2.4. Lipid Profile
- 8.2.5. Cardiac Markers
- 8.2.6. Pancreatic Function Tests
- 8.2.7. Hormonal Assay
- 8.2.8. Protein and Enzyme Studies

8.2.9. Vitamin and Mineral Tests
8.2.10 Urine Biochemical Tests
8.2.11. Tumour markers

• **M8U3 Immunological investigations**

8.3.1. Autoimmune Disease Markers
8.3.2. Inflammatory Markers
8.3.3. Immunoglobulins
8.3.4. Allergy Tests
8.3.5. Transplant & Blood Compatibility Tests
8.3.6. Infectious Disease Serological tests

• **M8U4 Microbiology - Detection of infectious agents**

8.4.1. Gram Staining and Culture
8.4.2. Blood Culture & Sensitivity
8.4.3. Urine Culture & Sensitivity
8.4.4. Stool Culture
8.4.5. Sputum Examination
8.4.6. PCR (Polymerase Chain Reaction)
8.4.7. NAAT (Nucleic Acid Amplification Test)
8.4.8. PAP Smear

• **M8U5 Electrophysiological and Imaging Techniques in Cardiovascular and Neuromuscular Diagnostics**

8.5.1. Electrocardiogram, Echocardiogram,
8.5.2. Electro Encephalogram, Electro Myogram, Nerve conduction studies

	• M8U6 Imaging modalities in Medical Diagnostics 8.6.1. X-ray - Chest and joints 8.6.2. CT (with respect to Neurological and Respiratory diseases) 8.6.3. MRI (with respect to Neurological diseases) 8.6.4. Positron emission tomography (PET) 8.6.5. Single Photon Emission Computed Tomography (SPECT) • M8U7 Specialized Diagnostic Procedures 8.7.1. Barium studies, Endoscopy, Colonoscopy 8.7.2. Ultrasound, Doppler studies, Mammogram 8.7.3. Angiography					
		16	80	160	240	480

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

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical training /experiential learning) session, the students should be able to)	3C Notional Learning Hours	3D Lecture/ Practical Training/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/Shows how/Knows how/Know)	3G Teaching Learning Methods
Module 1 : Basic principles						
Module Learning Objectives (At the end of the module, the students should be able to)						
Describe 96 <i>thathuvam</i>, <i>Iymbootham</i> theory (five element theory) with respect to affected <i>Uyir thathu- Vali</i>, <i>Azhal</i> and <i>Iyam</i> and the students will be able to identify drugs with respect to <i>Suvaigal</i> (taste) and <i>Veeriyam</i> potency principle which suits the clinical condition through literature review. Identify independently by exercising their clinical knowledge about 96 <i>thathuvas</i>, five elements and three humours, taste-potency relativity theory for the drug of choice and line of treatment with scientific perspectives through group discussion and brainstorming session. Apply clinical knowledge of <i>pranayamam</i> techniques and determine its effect on different clinical conditions.						
Unit 1 Iymboothangal (Five elements), Karu urpatthi (Embryogenesis) & Saram (Respiration)						
1.1.1. <i>Iymbootham</i> (Five elements) 1.1.2. Relationship between <i>Iymboothangal</i> and <i>Iymporigal</i> & <i>Iympulangal</i> 1.1.3. <i>Panchabhootha Panchekaranam</i> (Creation of five elements) 1.1.4. Recognizing <i>Iymboothangal</i> through colour 1.1.5. <i>Thegam Panchabootham</i> (Manifestation of <i>Iymbootham</i> (five elements) in our body) 1.1.6. <i>Iymbootha koorupaattaiyudaiya porulgalin panbugal</i> (Characteristics of things consists of five elements) 1.1.7. Correlation of <i>Panchabootham</i> (five elements) with <i>Mukkutram</i> (<i>Vali</i>, <i>Azhal</i> and <i>Iyam</i>) and <i>Arusuvaigal</i> (Six tastes) 1.1.8. <i>Karu urpatthi</i> (Embryogenesis), Role of <i>Iymboothangal</i> in <i>Karu urpatthi</i> (Embryogenesis) 1.1.9. <i>Saram</i> (Respiration) and its details						

References: 1,2,60,62,65,67

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Describe principle of <i>Imbootham</i> , relationship between <i>ymbootham</i> and <i>pori & pulan</i> – <i>Panchabhootha Pancheekaranam</i> - recognizing <i>ymbootham</i> through colour- <i>Thegam Panchaboodham</i> (Manifestation of <i>Iymbootham</i> (five elements) in our body)– characteristics of things consists of <i>ymbootham</i> - correlation of <i>Panchabootham</i> (five elements) with <i>Mukkuttram</i> and <i>Arusuvaigal</i> (Six tastes)	2	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO3 ,CO4,CO6	Compare the concept of <i>Panchabootham</i> and its relevance to the human body and <i>Kutram</i> in Siddha medicine, across other traditional and scientific systems, and apply this understanding in clinical and diagnostic contexts.	4	Practical Training 1.1	PSY-GUD	Shows-how	DIS,TBL, ML
CO1,CO2,CO3 ,CO4,CO6	Review and integrate classical <i>Siddha</i> concepts and modern scientific literature on the <i>Saram</i> (Respiration) and the effect of <i>Pranayamam</i> in human body.	4	Practical Training 1.2	PSY-ADT	Shows-how	TBL,ML, LS
CO1,CO2,CO3 ,CO4,CO6	Observe the effects of <i>Pranayamam</i> , and analyse and interpret the outcomes in a structured manner.	5	Experiential-Learning 1.1	PSY-ADT	Shows-how	CBL,TBL

Unit 2 Suvaigal (Taste) and Veeriyam (potency) and their therapeutic application

- 1.2.1. Details of *Suvaigal* (Tastes) & *Veeriyam* (potency)
- 1.2.2. Relationship between *Iymboothangal* (five elements) and *Suvaigal* (tastes)
- 1.2.3. Characters of *Arusuvaigal* (six tastes)
- 1.2.4. *Suvai* - *Thanmai*, *Nargunam*, *Theegunam*
- 1.2.5. Interrelationship between five elements, six tastes and three humours and abnormalities during their derangements
- 1.2.6 Tastes augmenting and balancing *Thirithodam*

References: 1,2,3,66

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4,CO6	Elaborate the concept of <i>Suvai</i> (Taste) – <i>Veeriyam</i> (potency) – <i>Aimbootham</i> (five elements) and <i>suvaigal</i> (tastes)–characters of <i>Aru suvaigal</i> (six tastes) - <i>Suvai - Migugunam</i> , <i>Kurai gunam</i> (Augmenting and diminishing characteristics of Taste) – Interrelationship between five elements, six tastes and three humours and abnormalities during their derangements, Tastes augmenting and balancing <i>Thirithodam</i>	2	Lecture	CAN	Knows-how	L&PPT
CO1,CO2,CO3,CO4,CO6	Analyse the role of taste in balancing <i>Kuttram</i> , identify associated herbs and compile findings into a structured report.	4	Practical Training 1.3	PSY-GUD	Shows-how	ML,LS,TBL
CO1,CO2,CO3,CO4,CO6	Apply the concept of <i>Veeriyam</i> (potency) in <i>Siddha</i> medicine	3	Experiential-Learning 1.2	CAN	Does	DIS,LS,TBL
CO1,CO2,CO3,CO4,CO6	Analyse the scientific rationale behind the characteristics, <i>Nargunam</i> (beneficial properties) and <i>Theegunam</i> (adverse properties) of various <i>suvai</i> (tastes) and their role in treatment.	3	Experiential-Learning 1.3	CAN	Does	TBL,ML,LS

Unit 3 96 Thathuvam - Muthal Thathuvam

- 1.3.1. *Bootham* – 5
- 1.3.2. *Pori* – 5
- 1.3.3. *Pulan* - 5
- 1.3.4. *Kanmenthiriyam* - 5
- 1.3.5. *Kanmavidayam* - 5
- 1.3.6. *Karanam* - 4
- 1.3.7. *Arivu* - 1

References: 1,2,60,62,63,64,65

3A	3B	3C	3D	3E	3F	3G
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CO1,CO2,CO3 ,CO4,CO6	Describe the <i>Imboothangal</i> , <i>Imporigal</i> , <i>Impulangal</i> , <i>Kanmenthiriyangal</i> , <i>Kanmavidayangal</i> , <i>Andhakaranangal</i> and <i>Arivu</i>	2	Lecture	CC	Knows- how	L&PPT
CO1,CO2,CO3 ,CO4,CO6	Analyse the concepts in 96 <i>Thathuvam</i> - <i>Muthal thathuvam</i> and correlate them with modern scientific aspects.	4	Experiential- Learning 1.4	CAN	Does	TBL,ML, LS

Unit 4 96 Thathuvam - Irandam Thathuvam

- 1.4.1. *Naadi* – 10
- 1.4.2. *Vaayu* – 10
- 1.4.3. *Aasayangal* – 5
- 1.4.4. *Kosam* – 5

References: 1,2,60,61,62,63,64,65

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Describe <i>Dhasanaadigal</i> , <i>Dhasavaayukkal</i> , <i>Aasayangal</i> and <i>Kosangal</i>	2	Lecture	CC	Knows- how	L&PPT
CO1,CO2,CO3 ,CO4,CO6	Analyse physiological and pathological significance of <i>Dasa Naadigal</i>	2	Practical Training 1.4	PSY- GUD	Shows- how	DIS
CO1,CO2,CO3 ,CO4,CO6	Analyse physiological and pathological significance of <i>Dasavaayukkal</i>	2	Practical Training 1.5	CAN	Shows- how	DIS,TBL
CO1,CO2,CO3 ,CO4,CO6	Analyse the concepts in 96 <i>Thathuvam</i> - <i>Irandam thathuvam</i> and correlate them with modern scientific aspects	4	Experiential- Learning 1.5	CAN	Does	ML,TBL, LS

Unit 5 96 Thathuvam - Moondram Thathuvam

- 1.5.1. *Aadhaaram* – 6

- 1.5.2. *Mandalam* – 3
- 1.5.3. *Malam* – 3
- 1.5.4. *Thodam* – 3
- 1.5.5. *Edanai* – 3
- 1.5.6. *Gunam* – 3
- 1.5.7. *Raagam* – 8
- 1.5.8. *Vinai* – 2
- 1.5.9. *Avatthai* - 5

References: 1,2,60,62,63,64,65

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Describe <i>Aadharangal</i> , <i>Mandalam</i> , <i>Malam</i> , <i>Thodam</i> , <i>Edanai</i> , <i>Gunam</i> , <i>Raagam</i> , <i>Vinai</i> and <i>Avatthai</i>	2	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO3 ,CO4,CO6	Explore, question, and connect the Siddha concepts of <i>Aadhaaram</i> , <i>Mandalam</i> , <i>Malam</i> , <i>Thodam</i> , and <i>Edanai</i> with modern scientific knowledge	2	Practical Training 1.6	PSY-GUD	Shows-how	DIS,BS
CO1,CO2,CO3 ,CO4,CO6	Explore <i>Siddha</i> concepts of <i>Gunam</i> , <i>Raagam</i> , <i>Vinai</i> and <i>Avatthaigal</i>	2	Practical Training 1.7	CAN	Shows-how	TBL,BS
CO1,CO2,CO3 ,CO4,CO6	Analyse the concepts in <i>96 Thathuvam - Moondram thathuvam</i> and correlate them with modern scientific aspects.	3	Experiential-Learning 1.6	CAN	Does	LS,ML,TBL
CO1,CO2,CO3 ,CO4	Analyse <i>96 Thathuvam</i> (fundamental principles) in Siddha medicine, appreciate their philosophical and physiological significance, and explore their clinical relevance in the diagnosis and treatment of diseases	4	Experiential-Learning 1.7	CAN	Does	FV,SY,L

Practical Training Activity

Practical Training 1.1 : Scientific perspectives of *Iymbootham*

Total duration: 4 hours.

Activity 1 (2 hours)

Introduction by the teacher. (30 minutes)

Group Discussion: Conduct a group discussion. Each participant presents their understanding of one of the *Bootham* (element) with relevant to human body, *Kutram* etc. (1 hour)

Q & A session and conclusion (30 minutes)

Activity 2 (2 hours)

Each group will be assigned a topic related to the comparison of *Panchabootham* (five elements) with scientific concepts, such as their role in *Karu urpatthi* (embryogenesis), cellular metabolism, genesis of *panchabootham* etc. Each group is expected to gather relevant information, compile and categorize the content systematically, and submit their findings to the teacher. (2 hours)

Practical Training 1.2 : Scientific comparison of *Saram*

Total duration of the activity is 4 hours.

Divide students into groups. Each group will gather the details of *Saram* (Respiration) in *Siddha* literature, compare and correlate with scientific literature with respect to physiology, pathology, relation to *Panchabootham* (five elements), effect of *Pranayamam* on physiological systems, diseases, biomarkers etc etc. and present to the teacher. (3 hours)

Each group should organize the findings, prepare and submit a report on the assigned topic to the teacher. (1 hour)

Practical Training 1.3 : Exploring *Suvaigal* and *Kutram*

Total duration of the activity is 4 hours

Students will be divided into groups. Each group should select one *Suvai* to work on it. Identify which *kuttram* the selected taste neutralizes. Each group identify herbs, metals, minerals, *Siddha* formulations associated with the chosen *Suvai*. (2 hours)

Correlate the identified herbs, metals, minerals in which human system and disease the listed herbs acts, by doing literature review. Compile all findings into a structured report and submit it to the teacher at the end of the activity. (2 hours)

Practical Training 1.4 : Scientific discussion on *Dasa Naadigal*

Total duration of the activity is 2 hours

Conduct a group discussion on *Dasa Naadigal*.

Introduction by the teacher 15 minutes

Discussion on Physiological aspects (45 minutes)

Discussion on Pathological aspects (45 minutes)

Q & A Session (15 minutes)

Practical Training 1.5 : Group discussion on *Dasavaayukkal*

Total duration of the activity is 2 hours
Conduct a group discussion on *Dasa vaayukkal*.
Introduction by the teacher 15 minutes
Discussion on Physiological aspects (45 minutes)
Discussion on Pathological aspects (45 minutes)
Q & A Session (15 minutes)

Practical Training 1.6 : Brainstorming on *Aadhaaram, Mandalam, Malam, Thodam, Edanai*

Total duration of the activity is 2 hours
Conduct a brain storming session on *Aadhaaram, Mandalam, Malam, Thodam, Edanai*.
Introduction by the teacher (15 minutes)
Divide students into groups and assign one concept per group. Instruct them to brainstorm answers to questions on various aspects such as *Siddha* principles, anatomy, physiology, pathology etc (1 hour 30 minutes)
Q & A Session (15 minutes)

Practical Training 1.7 : Brainstorming on *Gunam, Raagam, Vinai* and *Avatthaigal*

Total duration of the activity is 2 hours
Conduct a brain storming session on *Gunam, Raagam, Vinai* and *Avatthaigal*.
Introduction by the teacher (15 minutes)
Divide students into groups and assign one concept per group. Instruct them to brainstorm answers to questions on various aspects such as *Siddha* principles, anatomy, physiology, pathology, etc (1 hour 30 minutes)
Q & A Session (15 minutes)

Experiential learning Activity**Experiential-Learning 1.1** : Case series on *Pranayamam*

Total duration of the activity is 5 hours
Students will be divided into groups. Each group will conduct a case series on any topic related to *Pranayamam*, record observations and analyse results in minimum 10 patients. Summarize the findings with proper documentation.

Experiential-Learning 1.2 : Veeriyam (Potency)

Total duration of the activity is 3 hours

Each group will choose five common diseases and identify the predominant *Kutram* (*Vali*, *Azhal* or *Iyam*) involved in each condition, with the support of classical literature or guidance from the instructor. Based on the *Kutram* identified, they will recommend the suitable *Veeriyam* (hot or cold) required to pacify the imbalance. The groups will then suggest appropriate herbs, metals, minerals, internal and external medicines that align with the recommended *veeriyam* and also discuss the role of *anupanam*. (2 hours)

Students will summarize organize the key findings and submit to the teacher. (1 hour)

Experiential-Learning 1.3 : Scientific analysis of *Suvaigal*

Total duration of the activity is 3 hours

Students will be divided into groups, with each group assigned one or two *suvai* (tastes). Each group will analyse the scientific basis behind the characteristics, *Nargunam* (beneficial properties), *Theegunam* (adverse properties), associated with their assigned *suvai* and their role in the treatment. (2 hours)

At the end of the activity each group should prepare a report and submit their findings to the teacher. (1 hour)

Experiential-Learning 1.4 : 96 *Thathuvam* - *Muthal Thathuvam* - Literature review

Total duration of the activity is 4 hours

Students will be divided into groups. Each group should be assigned one or two concept/category from 96 *Thathuvam* - *Muthal Thathuvam*. They should perform a literature review on the assigned topic and correlate with scientific aspects. (3 hours)

Each group will summarize the key points from each source, highlighting connections to the 96 *Thathuvam*, categorize the findings, compare and correlate the traditional and modern scientific interpretations and Submit the review to the teacher. (1 hour)

Experiential-Learning 1.5 : 96 *Thathuvam* - *Irاندam Thathuvam* - Literature review

Total duration of the activity is 4 hours

Students will be divided into groups. Each group should be assigned one or two concept/category from 96 *Thathuvam* - *Irاندam Thathuvam*. They should perform a literature review on the assigned topic and correlate with scientific aspects. (3 hours)

Each group will summarize the key points from each source, highlighting connections to the 96 *Thathuvam*, categorize the findings, compare and correlate the traditional and modern scientific interpretations and Submit the review to the teacher. (1 hour)

Experiential-Learning 1.6 : 96 *Thathuvam* - *Moondram Thathuvam* - Literature review

Total duration of the activity is 3 hours Students will be divided into groups. Each group should be assigned one or two concept/category from <i>96 Thathuvam - Moondram Thathuvam</i>. They should perform a literature review on the assigned topic and correlate with scientific aspects (2 hours) Each group will summarize the key points from each source, highlighting connections to the <i>96 Thathuvam</i>, categorize the findings, compare and correlate the traditional and modern scientific interpretations and Submit the review to the teacher. (1 hour)	
Experiential-Learning 1.7 : Insights on <i>96 Thathuvam</i>	
Total duration of the activity is 4 hours Arrange a guest lecture / invited expert talk / webinar / field visit regarding 96 Thathuvam. Sample schedule of the programme: Inauguration (30 minutes) Introduction (30 minutes) Explanation on Siddha aspect (1 hour) Clinical relevance and application (1 hour) Modern interpretation (30 minutes) Q & A session and wrap-up (30 minutes)	
Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks per credit. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C I. Multiple Choice Questions (10 Questions) (10 x 1 = 10 Marks) II. Short answer questions - 2 questions (2 x 5 = 10 marks) III. Long Answer questions - 1 question (1 x 10 = 10 marks) IV. Viva - 10 questions (10 x 2 = 20 marks) Or Any practical in converted form can be taken for assessment (25 marks) and Any of the experiential as portfolio/ reflections /presentations can be taken as an assessment (25 marks)	4

Module 2 : Three Humoral Theory: Vali, Azhal and Iyam

Module Learning Objectives

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

Describe formation of *Uyir thathukkal* and their characteristics, dominant locations, types, qualities and imbalances.

Analyse the case scenario with respect *Migu gunam*, *kurai gunam* of three humours, 6 qualities due to elevated humours and diagnose the deranged humour.

Identify the deranged humour in patients and decide the line of treatment with respect to taste and antagonistic qualities of the deranged humour

Unit 1 Exploring the characteristics of three humours

2.1.1. Interrelationship between *Mukkutram* and *Arusuvaigal*.

2.1.2. Interrelationship between *Mutthodam* and *Udal Thathukkal*

2.1.3. Interrelationship between *Mutthodam* and *Malam* (*Malam*, *Siruneer* & *Viyarvai*)

2.1.4. Interrelationship between *Mutthodam* and *Mukkunam*

2.1.5. Characteristics of *Mutthodam*. *Mutthodangalum vanmaiadaiyum nilaiyil velippadum 6 gunangal* (Qualities exhibit due to thriving *Vali*, *Azhal* and *Iyam*)

2.1.6. *Mutthodangalin vanmaiai neekakoodiya 6 ethir gunangal* (Antagonistic qualities to balance the thrived *Vali*, *Azhal* and *Iyam*)

References: 1,2,60

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Elaborate the characteristics of three humours, relationship between <i>Iymbootham</i> , <i>Mukkutram</i> and <i>Arusuvaigal</i> , Interrelationship between <i>Mukkutram</i> and <i>Mukkunam</i> , <i>Vali</i> , <i>Azhal</i> and <i>Iyathodangal vanmaiadaiyum nilaiyil velippadum 6 gunangal</i> (Qualities due to thriving <i>Vali</i> , <i>Azhal</i> and <i>Iyam</i>), <i>Vali</i> , <i>Azhal</i> and <i>Iyam vanmaiai neekakoodiya 6 ethir gunangal</i> (Antagonistic qualities to balance the thrived <i>Vali</i> , <i>Azhal</i> and <i>Iyam</i>).	1	Lecture	CAN	Knows-how	L,L&PPT

CO1,CO2,CO3,CO4,CO6	Correlate <i>Mukkutram</i> with <i>Mukkunam</i> and personality traits/types.	5	Practical Training 2.1	PSY-GUD	Shows-how	TBL,ML,LS
CO1,CO2,CO3,CO4,CO6	Analyse the 6 qualities of thriving <i>Vali</i> , <i>Azhal</i> and <i>Iyam</i> by analysing signs and symptoms and thereby to find out the herbs, metals, minerals, medicines, food having antagonistic qualities to balance the thrived <i>Vali</i> , <i>Azhal</i> and <i>Iyam</i> .	3	Experiential-Learning 2.1	PSY-ADT	Does	TBL,CBL
CO1,CO2,CO3,CO4,CO6	Analyse the correlation between <i>Mukkutram</i> and the physiological functions of <i>Malam</i> (stool), <i>Siruneer</i> (urine), and <i>Viyarvai</i> (sweat), and to critically evaluate traditional elimination/cleansing treatment methods through a comprehensive review of <i>Siddha</i> literature.	3	Experiential-Learning 2.2	CAN	Does	TBL,LS,ML

Unit 2 Vali / Vatham

- 2.2.1 Shape
- 2.2.2. Dominant locations
- 2.2.3. Characteristics
- 2.2.4. Functions
- 2.2.5. Types
- 2.2.6. *Migu gunam* & *kurai gunam* (increased & decreased features)
- 2.2.7. *Vali vanmai adaiyum podhu undaagum gunangal* & *adhanai neekum ethir gunangal*
- 2.2.8. *Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal*.

References: 1,2,60,65

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4,CO6	Detail <i>Vali</i> , shape, dominant locations, types, physio-pathological conditions (increased & decreased features) <i>Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal</i> .	3	Lecture	CAN	Knows-how	L&PPT ,L
CO1,CO2,CO3,CO4,CO6	Identify pathological state of <i>Vali</i> in the given case scenario by applying <i>Siddha</i> concepts with scientific rationale.	4	Practical Training 2.2	PSY-GUD	Shows-how	TBL,CD,D,CBL

CO1,CO2,CO3 ,CO4,CO6	Analyse the pathological state of <i>Vali</i> from the clinical signs and symptoms in patients in the clinical environment.	5	Experiential- Learning 2.3	PSY-ADT	Does	CBL
Unit 3 Azhal / Pitham 2.3.1 Shape 2.3.2. Dominant locations 2.3.3. Characteristics 2.3.4. Functions 2.3.5. Types 2.3.6. <i>Migu gunam & kurai gunam</i> (increased & decreased features) 2.3.7. <i>Azhal vanmai adaiyum podhu undaagum gunangal & adhanai neekum ethir gunangal</i> 2.3.8. <i>Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal.</i> References: 1,2,65						
3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Describe <i>Azhal</i> - dominant locations, characteristics, functions, types, <i>Migu gunam, Kurai gunam</i> (increased & decreased features) <i>Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal.</i>	3	Lecture	CC	Knows- how	L&PPT ,L
CO1,CO2,CO3 ,CO4,CO6	Identify pathological state of <i>Azhal</i> in the given case scenario by applying <i>Siddha</i> concepts with scientific rationale.	4	Practical Training 2.3	PSY- MEC	Shows- how	CD,TBL, D
CO1,CO2,CO3 ,CO4,CO6	Analyse the pathological state of <i>Azhal</i> from the clinical signs and symptoms in patients in the clinical environment.	5	Experiential- Learning 2.4	PSY-ADT	Does	CBL
Unit 4 Iyam / Kabam 2.4.1 Shape 2.4.2. Dominant locations						

- 2.4.3. Characteristics
 2.4.4. Functions
 2.4.5. Types
 2.4.6. *Migu gunam & kurai gunam* (increased & decreased features)
 2.4.7. *Iyam vanmai adaiyum podhu undaagum gunangal & adhanai neekum ethir gunangal*
 2.4.8. *Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal*

References: 1,2,60,65

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Describe <i>Iyam</i> , dominant locations, characteristics, functions, types, <i>Migu gunam</i> , <i>Kurai gunam</i> (increased & decreased features) <i>Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal</i> .	3	Lecture	CAN	Does	L
CO1,CO2,CO3 ,CO4,CO6	Identify pathological state of <i>Iyam</i> in the given case scenario by applying <i>Siddha</i> concepts with scientific rationale.	4	Practical Training 2.4	CC	Knows-how	TBL,CD, CBL
CO1,CO2,CO3 ,CO4,CO6	Analyse the pathological state of <i>Iyam</i> from the clinical signs and symptoms in patients in the clinical environment.	5	Experiential-Learning 2.5	PSY-GUD	Does	CD,CBL

Unit 5 Vali / Vatham, Azhal / Pitham and Iyam / Kabam

- 2.5.1. *Vali*, *Azhal* and *Iyam* - Dominant locations–characteristics, functions, Types, *Migu gunam*, *kurai gunam* (increased & decreased features) *Thanilaivalarchi– Vetrunilaivalarchi– Thannilaiadaithal*.

References: 1,2,60,65

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Demonstrate an understanding of their pathogenesis from both <i>Siddha</i> and Modern medical perspectives through group analysis and presentation.	3	Practical Training 2.5	PSY-GUD	Shows-how	LS,ML,T BL

CO1,CO2,CO3 ,CO4,CO6	Apply the <i>Thiridhodam</i> concept from the clinical signs and symptoms in diagnosis	5	Experiential- Learning 2.6	PSY- GUD	Does	CBL,CD
Practical Training Activity						
Practical Training 2.1 : <i>Mukkutram</i> and <i>Mukkunam</i>						
Total duration of the activity is 5 hours Students will be divided into groups. Each group will be assigned a topic on <i>Vali</i>, <i>Azhal</i> and <i>Iyam</i>. They should do literature review and compare the assigned <i>Kutram</i> (<i>Vali</i>, <i>Azhal</i> and <i>Iyam</i>) with <i>Mukkunam</i> (<i>Satthuva</i>, <i>Raso</i> and <i>Thamo gunam</i>) and personality traits/types. (4 hours) At the end of the activity, each group should prepare and present the report to teacher (1 hour)						
Practical Training 2.2 : <i>Mukkuutra parisothanai: Vali</i>						
Total duration of the activity is 4 hours The teacher will explain how to identify the pathological state of <i>Vali</i> (dysfunction of <i>Dhasavayukkal</i>, <i>Vali migu & kurai gunam</i>) through clinical signs and symptoms. (30 minutes) Students will be divided into small groups. Each group will be given 5 case scenarios with respect to deranged <i>Vali</i> condition. Each group should identify the pathogenesis of given clinical condition with respect to imbalanced <i>Vali</i>. (3 hours) At the end of the activity, each group will submit the report to the teacher. It should contain proper justification of <i>Vali</i> derangement for the given case scenarios by applying <i>Siddha</i> concepts with proper scientific rationale. (30 minutes)						
Practical Training 2.3 : <i>Mukkuutra parisothanai: Azhal</i>						
Total duration of the activity is 4 hours The teacher will explain how to identify the pathological state of <i>Azhal</i> (dysfunction of subtypes of <i>Azhal</i>, <i>Azhal migu & kurai gunam</i>) through clinical signs and symptoms. (30 minutes) Students will be divided into small groups. Each group will be given 5 case scenarios with respect to deranged <i>Azhal</i> condition. Each group should identify the pathogenesis of given clinical condition with respect to imbalanced <i>Azhal</i>. (3 hours) At the end of the activity, each group will submit the report to the teacher. It should contain proper justification of <i>Azhal</i> derangement for the given case scenarios by applying <i>Siddha</i> concepts with proper scientific rationale. (30 minutes)						
Practical Training 2.4 : <i>Mukkuutra parisothanai: Iyam</i>						

Total duration of the activity is 4 hours
 The teacher will explain how to identify the pathological state of *Iyam* (dysfunction of *Subtypes of Iyam*, *Iyam migu & kurai gunam*) through clinical signs and symptoms. (30 minutes)
 Students will be divided into small groups. Each group will be given 5 case scenarios with respect to deranged *Iyam* condition. Each group should identify the pathogenesis of given clinical condition with respect to imbalanced *Iyam*. (3 hours)
 At the end of the activity, each group will submit the report to the teacher. It should contain proper justification of *Iyam* derangement for the given case scenarios by applying *Siddha* concepts with proper scientific rationale. (30 minutes)

Practical Training 2.5 : Mukkutram and Diseases

Total duration of the activity is 3 hours
 Students will be divided into groups. Each group will be assigned one or two *Kuttram* (either individually or in combination). Each group must identify and analyse diseases that arise due to the derangement of the assigned *Kuttram*, considering both *Siddha* and Modern disease terminologies. (2 hours 30 minutes)
 Following the research and discussion, each group will present their findings in detail to the teacher. (30 minutes)

Experiential learning Activity

Experiential-Learning 2.1 : Qualities of *Vali*, *Azhal* and *Iyam*

Total duration of the activity is 3 hours
 Students will be divided into groups. Each group will select a minimum of 10 patients in their OPD/IPD. The students should evaluate the characteristics/qualities of *Vali*, *Azhal* and *Iyam* through signs and symptoms in the patients. (2 hours)
 Students should identify the antagonistic quality to balance the thrived *Vali*, *Azhal* and *Iyam*. Students should recommend herbs, metals, minerals, medicines, food having antagonistic qualities which balances the imbalanced *Vali*, *Azhal* and *Iyam*. Each student will present their findings to the concerned faculty for evaluation and conclusion. (1 hour)

Experiential-Learning 2.2 : Mukkutram and bodily excretions

Total duration of the activity is 3 hours
 Students will be divided into groups. Each group will correlate the concept of *Mukkutram* with its influence on bodily excretions (*Malam* (stool), *Siruneer* (urine), and *Viyarvai* (sweat)). (1 hour)
 Additionally, each group should select a topic related to elimination/cleansing treatment methods (e.g *Viresanam*, *Vamanam*) used to expel accumulated toxins or to neutralize the imbalanced humors (*Vali*, *Azhal* & *Iyam*) and conduct a literature review. (2 hours)
 At the end of the activity, each group should submit a report of their work to the teacher.

Experiential-Learning 2.3 : Mukkutra Parisothanai: Vali		
Total duration of the activity is 5 hours The teacher will assign a minimum of 10 patients having <i>Vali</i> disease for each student in the their respective OPD/IPD. Students should independently recognize the pathological state of <i>Vali</i> including its subtypes through clinical signs and symptoms. (4 hours) Each student will present their findings with proper justification to the concerned faculty. (1 hour)		
Experiential-Learning 2.4 : Mukkutra Parisothanai: Azhal		
Total duration of the activity is 5 hours The teacher will assign a minimum of 10 patients having <i>Azhal</i> disease for each student in the their respective OPD/IPD. Students should independently recognize the pathological state of <i>Azhal</i> including its subtypes through clinical signs and symptoms. (4 hours) Each student will present their findings with proper justification to the concerned faculty. (1 hour)		
Experiential-Learning 2.5 : Mukkutra parisothanai: Iyam		
Total duration of the activity is 5 hours The teacher will assign a minimum of 10 patients having <i>Iyam</i> disease for each student in the their respective OPD/IPD. Students should independently recognize the pathological state of <i>Iyam</i> including its subtypes through clinical signs and symptoms. (4 hours) Each student will present their findings with proper justification to the concerned faculty. (1 hour)		
Experiential-Learning 2.6 : Mukkutra parisothanai: Vali, Azhal & Iyam		
Total duration of the activity is 5 hours The teacher will assign a minimum of 10 patients of different diseases to each student in the their respective OPD/IPD. Students should identify independently the imbalanced humour through signs and symptoms (3 hours) Based on their findings, students will propose suitable remedies, which includes herbs, metals, minerals, diet, medicines based on <i>Suvai, Gunam, Veeriyam and Magimai</i>. (1 hour) Each student will present their findings to the concerned faculty for evaluation and conclusion. (1 hour)		
Modular Assessment		
Assessment method		Hour
Conduct a structured modular assessment. Assessment will be for 50 marks per credit. Keep a structured marking pattern. Use different assessment methods		4

in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C

I. Structured Long Answer Question - 1 question (1 x 10 = 10 marks)

II. Case Based Assessment or Scenario Based Assessment on Mukkuttram. (1 x 20 = 20 marks)

III. Viva - 10 questions (10 x 2 = 20 marks)

Or

Any practical in converted form can be taken for assessment (25 marks)

and

Any of the experiential as portfolio/ reflections /presentations can be taken as an assessment (25 marks)

Module 3 : Siddha Physiology: Uyiranal, Udal Thee, Udal Vanmai, Udal Thathukkal, 14 Vegangal & Yaakkai Ilakkanam

Module Learning Objectives

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

Elaborate the clinical importance of *Uyir anal* (Basal fire for survival), 7 *Udal thathukkal* (Physical constituents), 14 *Vengangal* (Natural urges), *Yaakkai ilakkanam* (Body constitution), 4 types of *Udal thee* and 3 types of *Udal vanmai* (immunity).

Design separate standard questionnaires to identify the affected 7 *Udal thathukkal* (physical constituents), 14 *Vengangal* (14 natural urges), 3 types of *Udal vanmai* (immunity) and 4 types of *Udal thee* (digestive fire).

Identify the type of *Yaakkai* (body constitution), abnormalities in 7 *Udal thathukkal* (physical constituents), 14 *Vengangal* (14 natural urges), 3 types of *Udal vanmai* (immunity) and 4 types of *Udal thee* (digestive fire) status in patients.

Unit 1 Uyiranal, Udal thee and Udal Vanmai

3.1.1. *Uyiranal*

3.1.2. *Udal thee* and its types

3.1.3. Interrelationship between *Mukutram* and *Udal thee*

3.1.4. *Udal Vanmai* and its types

References: 1,2,60,65

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4,CO6	Describe the functions of Uyiranal, Udal Thee (Digestive fire), and Udal Vanmai (Strength / Immunity)	2	Lecture	CC	Knows-how	L&PPT ,L
CO1,CO2,CO3,CO4,CO6	Develop a questionnaire on <i>Udal thee</i> (digestive fire)	3	Practical Training 3.1	PSY-GUD	Shows-how	TBL

CO1,CO2,CO3 ,CO4,CO6	Develop a questionnaire on <i>Udal vanmai</i> (immunity)	3	Practical Training 3.2	CAP	Does	PER,ML, LS
CO1,CO2,CO3 ,CO4,CO6	Determine the status of <i>Udal thee</i> (digestive fire) in patients	3	Experiential- Learning 3.1	CAP	Does	CBL,PER
CO1,CO2,CO3 ,CO4,CO6	Determine the status of <i>Udal vanmai</i> (Immunity) in patients.	3	Experiential- Learning 3.2	CAP	Does	CD,CBL

Unit 2 Udal Thathukkal (Seven Physical constituents)

3.2.1. Details of *Udal thathukkal* and their functions/characteristics

3.2.2. *Migu gunam* and *kurai gunam* (increased and decreased characters)

3.2.3. Interrelationship between *Udal thathukkal* (Seven physical constituents) and *Mutthodam* (Vali, Azhal & Iyam)

References: 1,2,60,65

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Elaborate the details of <i>Udal thathukkal</i> (Seven Physical constituents)	3	Lecture	CC	Knows- how	L&PPT ,L
CO1,CO2,CO3 ,CO4,CO6	Identify the affected <i>Udal thaathu</i> based on Siddha clinical assessment	4	Practical Training 3.3	PSY- GUD	Shows- how	D,TBL,C BL,D- BED
CO1,CO2,CO3 ,CO4,CO6	Assess <i>Udal thathukkal</i> in patients	3	Experiential- Learning 3.3	PSY-ADT	Does	CBL
CO1,CO2,CO3 ,CO4,CO6	Analyse interrelationship between <i>Udal thathukkal</i> & <i>muthodam</i> , pathophysiology, clinical implications (<i>Siddha</i> and Modern scientific perspectives), <i>Siddha</i> formulations act on it and present before the class	3	Experiential- Learning 3.4	CAN	Does	PER

Unit 3 Yaakkai ilakkanam (Body constitution)

3.3.1. Types of Yaakkai

References: 1,2,60,65,73,74,75,76

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4,CO6	Elaborate the details of <i>Yaakkai ilakkanam</i>	3	Lecture	CC	Knows-how	L
CO1,CO2,CO3,CO4,CO6	Develop a questionnaire on <i>Yaakai ilakkanam</i>	4	Practical Training 3.4	PSY-GUD	Shows-how	ML,TBL,LS
CO1,CO2,CO3,CO4,CO6	Analyse Siddha traditional concepts of <i>Yaakkai ilakkanam</i> scientifically and compare it with <i>Yaakkai</i> types mentioned in other traditional systems of medicine.	4	Practical Training 3.5	PSY-ADT	Shows-how	TBL,LS,ML
CO1,CO2,CO3,CO4,CO6	Evaluate the type of <i>Yaakkai</i> in the clinical setting	6	Experiential-Learning 3.5	PSY-MEC	Does	CBL

Unit 4 14 vegangal (Fourteen Natural Urges) and Physiological reflexes

- 3.4.1. Names of 14 natural urges
- 3.4.2. Abaana vaayu
- 3.4.3. Thummam
- 3.4.4. Siruneer
- 3.4.5. Malam
- 3.4.6. Kottaavi
- 3.4.7. Pasi
- 3.4.8. Neer vetkai
- 3.4.9. Kaasam
- 3.4.10. Ilaippu

- 3.4.11. Nitthirai
- 3.4.12. Vaanthi
- 3.4.13. Vizhi Neer
- 3.4.14. Sukkilam
- 3.4.15. Swaasam
- 3.4.16. Physiological reflexes

References: 1,2,60

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4,CO6	Describe the details of <i>14 Vegangal</i> and diseases that occurs due to suppression of these reflexes	2	Lecture	CAN	Knows-how	L
CO1,CO2,CO3,CO4,CO6	Analyse and explain the physiological and clinical aspects of specific reflexes, correlate them with traditional concepts of <i>14 Vegangal</i> (natural urges)	2	Practical Training 3.6	PSY-GUD	Shows-how	DIS,TBL
CO1,CO2,CO3,CO4,CO6	Evaluate the suppressed <i>Vegangal</i> (natural urges) in patients	4	Experiential-Learning 3.6	PSY-GUD	Does	CBL
CO1,CO2,CO3,CO4,CO6	Analyse the scientific rationale behind the suppression of <i>Vegangal</i> (Natural urges).	4	Experiential-Learning 3.7	PSY-GUD	Does	ML,LS

Practical Training Activity

Practical Training 3.1 : Questionnaire on *Udal thee*

Total duration of the activity is 3 hours

The teacher will demonstrate how to develop a questionnaire. (30 minutes)

Students will be divided into groups. Each group will be asked to develop a questionnaire to assess *Udal thee*. Each group will be given a specific task on questionnaire development. (2 hours 30 minutes)

At the end of the activity, each group will submit the developed questionnaire to the teacher.

Practical Training 3.2 : Questionnaire on *Udal vanmai* (Immunity)

Total duration of the activity is 3 hours
The teacher will demonstrate how to develop a questionnaire. (30 minutes)
Students will be divided into groups. Each group will be asked to develop a questionnaire to assess *Udal vanmai*. Each group will be given a specific task on questionnaire development. (2 hours 30 minutes)

Practical Training 3.3 : *Udal thathukkal parisothanai*

Total duration of the activity is 4 hours
The teacher will demonstrate how to assess the affected *Udal thathu* through clinical signs and symptoms (*migu gunam* or *kurai gunam* of *Udal thathu*) along with imbalanced humours. (30 minutes)
Students will be divided into small groups. Five patients with different clinical conditions will be given to each group. Each group will identify the affected *Udal thathu* and *kuttram* associated with it. Then each group will present their findings to the teacher. Each group should also propose herbs/metals/minerals/medicines for managing the imbalances in the affected *Udal thathu*. (3 hours)
The teacher will provide remarks, clarify doubts, and summarize key learning points. (30 minutes)

Practical Training 3.4 : Questionnaire development on *Yaakai ilakkanam*

Total duration of the activity is 4 hours
Teacher will demonstrate how to develop questionnaire. (30 minutes)
Students will be divided into groups. Each group will be assigned one *Yaakai ilakkanam*. Each group will develop a questionnaire for the assigned *Yaakkai ilakkanam* (3 hours)
At the end of the activity, each group should submit the questionnaire to teacher for review and discussion. (30 minutes)

Practical Training 3.5 : *Yaakkai* comparison

Total duration of the activity is 4 hours
Students will be divided into groups, with each group assigned one or two *Yaakkai* types. Each group will conduct a literature review on their assigned *Yaakkai* type and gather relevant scientific data, including research studies related to genomics, Ayurgenomics, and other related fields. (2 hours)
Students will compare the assigned *Yaakkai* types with those mentioned in other traditional system of medicines. At the end of the activity, each group will submit the findings to the teacher. (2 hours)

Practical Training 3.6 : *14 Vegangal* and physiological reflexes

Total duration of the activity is 2 hours
Group formation: Students will be divided into small groups. Each group will appoint a facilitator and a note taker. One or two reflexes will be assigned to each group, with the

objective of correlating or comparing them to *Vegangal* (natural urges). (15 minutes)
 Discussion: Each group will discuss about stimulus and response, pathway, physiological role, clinical relevance etc. regarding their assigned reflex methods (1 hour)
 Presentation: Each group will present a summary of their findings. (45 minutes)

Experiential learning Activity

Experiential-Learning 3.1 : *Udal thee* (Digestive fire) parisothanai

Total duration of the activity is 3 hours
 Each student will evaluate the *Udal Thee* (digestive fire) in at least 10 patients from OPD/IPD. They will identify the *Kuttram* causing the imbalance of *Udal Thee* using a structured questionnaire and associated pathological conditions. Based on the findings, students will also recommend suitable herbs, metals, minerals, or medicines for managing the identified imbalance. (2 hours 30 minutes)
 Each student will submit their findings to the concerned teacher. (30 minutes)

Experiential-Learning 3.2 : *Udal vanmai* (Immunity) parisothanai

Total duration of the activity is 3 hours
 Each student will assess *Udal vanmai* in atleast 10 patients in OPD/IPD (2 hours 30 minutes)
 Each student will submit their findings with proper justification to the concerned teacher. (30 minutes)

Experiential-Learning 3.3 : *Udal Thathukkal* evaluation

Total duration of the activity is 3 hours
 Students should independently identify the affected udal thathu along with the corresponding disturbed humour through clinical assessment and treatment for atleast 10 patients. Each student will present their findings to the concerned faculty for evaluation.

Experiential-Learning 3.4 : Presentation on *Udal Thathukkal*

Total duration of the activity is 3 hours
 The teacher assigns each student one of the seven *Udal Thathukkal*. Students are instructed to prepare a presentation which includes introduction, interrelationship between *Udal thathukkal* & *muthodam*, pathophysiology, clinical implications (*Siddha* and Modern scientific perspectives) and *Siddha* interventions

Experiential-Learning 3.5 : *Yaakkai* parisothanai

Total duration of the activity is 6 hours

Students will be divided into groups. The teacher will assign a minimum of 20 patients to each group. Students should identify the type of <i>Yaakkai</i> (standard questionnaire is suggested to be used) in the patients in the OPD/IPD. (5 hours) At the end of the activity, each group should prepare and submit a report to the concerned faculty. (1 hour)	
Experiential-Learning 3.6 : Observation of 14 <i>Vegangal</i> in patients	
Total duration of the activity is 4 hours. Students will be divided into groups. Each group will develop a questionnaire on 14 <i>vegangal</i> and assess all <i>Vegangal</i> in 30 patients with the questionnaire and correlate the findings with <i>Siddha</i> literature. At the end of the activity, each group submit the report to the teacher.	
Experiential-Learning 3.7 : Scientific perspectives of 14 natural urges	
Total duration of the activity is 4 hours Students will be divided into groups. Each group will be given one or more natural urge. Each group should analyse the scientific rationale behind the suppression of assigned natural urge and prepare for presentation. (2 hours) Students should present assigned topic in the class. (2 hours)	
Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks per credit. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C I. Case Based Assessment on <i>Udal Thathukkal</i>, <i>Yaakai ilakkanam</i>, 14 <i>Vegangal</i>, <i>Udal thee</i> and <i>Udal vanmai</i> - Each carrying 4 marks (20 marks). One patient will be assigned to each student and students should assess <i>Udal Thathukkal</i>, <i>Yaakai ilakkanam</i>, 14 <i>Vegangal</i>, <i>Udal thee</i> and <i>Udal vanmai</i> in the given patient. II. Structured Long Answer Questions (2 x 10 = 20) III. Viva (5 Questions) (5 x 2 = 10 marks) Or Any practical in converted form can be taken for assessment (25 marks) and Any of the experiential as portfolio/ reflections /presentations can be taken as an assessment (25 marks)	4

Module 4 : Siddha Diagnostic and Prognostic Methods

Module Learning Objectives

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

Detail the *Therayar pinigalin muthal kaaranam*, *Maranakurigunangal* (fatal signs and symptoms), *Thodakurigunangal* (Complications), *Envagai thervu* and *Manikadai nool* (*Siddha* diagnostic tools and techniques), *Kirumigal* (worms infestations) and *Ottu noigal* (infectious diseases).

Analyse and correlate *Maranakurigunangal* (fatal signs and symptoms), *Thodakurigunangal* (Complications), *Envagai thervu* and *Manikadai nool* (*Siddha* diagnostic tools and techniques), *Kirumigal* (worms infestations) and *Ottu noigal* (infectious diseases) with scientific rationale.

Advocate *Siddha* diagnostic and prognostic methods in clinical setting.

Unit 1 Siddha etiology and pathology of diseases

4.1.1. *Theraiyar Pinigalin Mutharkaranam*

4.1.2. *Thodakurikunangal* (Complicated signs & symptoms), and their details

4.1.3. *Kirumigal* and *Ottu Noikal* (Worms and infectious diseases)

References: 1

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Describe <i>Siddha</i> etiology and pathology of diseases including <i>Theraiyar Pinigalin Mutharkaranam</i> , <i>Thodakurikunangal</i> (Complicated signs & symptoms), <i>Kirumigal</i> and <i>Ottu Noikal</i> (Worms and infectious diseases)	2	Lecture	CAN	Knows-how	L,L&PPT
CO1,CO2,CO3 ,CO4,CO6	Analyse the concept of <i>Kirumigal</i> in <i>Siddha</i> literature and effectively correlate it with recent scientific findings on human microbiota, demonstrating an integrative understanding through group presentations.	3	Practical Training 4.1	PSY-ADT	Shows-how	TBL,LS, ML

CO1,CO2,CO3 ,CO4,CO6	Facilitate the application of <i>Neikkuri</i> in the context of a specific disease	5	Experiential- Learning 4.1	PSY- ORG	Does	PER,CBL
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Unit 2 Envagai thervu

- 4.2.1. Details of *Envagai thervu* (Eightfold diagnostic method) which includes examination of *Naadi*, *Sparisam*, *Naa*, *Niram*, *Mozhi*, *Vizhi*, *Malam* and *Moothiram*.
4.2.2 *Naadi*: Definition– locations– pulseratio – *Vali*, *Azhal* & *Iyam*, *Naadi* –pulse variation according to time & season–*Boothanaadi*–*Guru Naadi*– Preponderant period of *Vali*, *Azhal* and *Iya naadi* –*Vali*, *Azhal*, *Iyam* and *Thondha Naadi Migu Kurai kurikunangal*, *Saathya* - *Asaathya Naadi*
4.2.3. Urine examination– *Neerkuri*, *Nirakuri* & *Neikuri* – According to Theraiyar and other Siddhars

References: 1,58,68,69,70,71

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO6	Describe the details of <i>Envagai Thervu</i>	4	Lecture	CC	Knows- how	L&PPT ,L
CO1,CO2,CO3 ,CO4,CO6	Perform <i>Envagai Thervu</i> (Eight diagnostic tool)	5	Practical Training 4.2	PSY- MEC	Shows- how	D-BED,C BL,D
CO1,CO2,CO3 ,CO4,CO6	Practice different aspects of <i>Naadi</i> examination technique and its practical application from experts through hands-on training <i>Naadi</i> workshop.	8	Experiential- Learning 4.2	PSY-SET	Does	W

Unit 3 Manikadai Nool

- 4.3.1. Details of *Manikadai nool*

References: 1,72

3A	3B	3C	3D	3E	3F	3G
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CO1,CO2,CO3,CO4,CO6	Describe the details of <i>Manikadai nool</i>	2	Lecture	CAN	Knows-how	L&PPT ,L
CO1,CO2,CO3,CO4,CO6	Perform and interpret <i>Manikadai nool</i> and discuss about anthropometric measurements	2	Practical Training 4.3	PSY-GUD	Shows-how	DIS,D,D-BED,CBL
CO1,CO2,CO3,CO4,CO6	Develop practical skills in performing the <i>Manikadai Nool</i> diagnostic method, apply it in the context of a specific disease, and critically analyse and interpret clinical findings through group-based data collection and reporting.	4	Experiential-Learning 4.3	CAP	Does	TBL,CBL

Unit 4 Prognosis and Fatal Signs in Siddha Medicine

4.4.1. Determine the fatal conditions of an individual based on *Vaineer / Ecchil* (Saliva), *Suvai* (Taste), *Oli* (Voice), *Kan* (Appearance of eye), *Kaadhu* (Appearance of ear), *Manam* (Smell), *Sukkilam* (Quality of semen) and *Uruppukalin Thudippu* (twitching).

4.4.2. *Thodakurigunangal* and *Marana Kuri Kunangal*

4.4.3. Prognosis of a disease based on some tests performed by breast milk, Pig's fat and blood of the diseased.

4.4.4. *Avathaikal*

4.4.5. *Thoothuvan ilakkanam*

References: 1

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4,CO6	Illustrate the details of <i>Avathaigal</i> , assessment of fatal conditions of an individual based on Saliva, Taste, Voice, Vision Hearing, Smell, Quality of semen and twitching, <i>Marana kurigunangal</i> (Fatal signs & symptoms), Prognosis of a disease based on some tests performed by breast milk, Pig's fat and blood of the diseased and and by observing the pulse and breathing, <i>Thoothuvan ilakkanam</i> (Prognosis of a patient by observing the messenger)	2	Lecture	CC	Knows-how	L,L&PPT
CO1,CO2,CO3,CO4,CO6	Correlate <i>Marana kurigunangal</i> (Fatal signs & symptoms) in <i>Siddha</i> literature with that of Modern science.	2	Practical Training 4.4	PSY-GUD	Shows-how	DIS,TBL

CO1,CO2,CO3,CO4,CO6	Analyse <i>Thodakurikunangal</i> (complicated signs and symptoms) that indicate disease progression or complications	2	Practical Training 4.5	PSY-GUD	Shows-how	DIS,TBL
CO1,CO2,CO3,CO4,CO6	Analyse <i>Thodakurikunangal</i> (complicated signs and symptoms) that indicates disease progression or complications.	3	Experiential-Learning 4.4	PSY-GUD	Shows-how	FC,ML,LS
CO1,CO2,CO4,CO6	Observe the signs and symptoms of terminally ill patients in palliative care centres	6	Experiential-Learning 4.5	PSY-MEC	Does	TBL,FV,CBL
CO1,CO2,CO3,CO4,CO6	Compare the fatal conditions of an individual based on Saliva, Taste, Voice, Vision Hearing, Smell, Quality of semen and twitching and <i>Avathaigal</i> with scientific literature	6	Practical Training 4.6	PSY-MEC	Shows-how	TBL,PER,ML,LS

Practical Training Activity

Practical Training 4.1 : *Kirumigal* in the light of microbiota

Total duration of the activity is 3 hours

Students will be divided into small groups, with each group assigned a specific topic related to *Kirumigal*. The groups are expected to explore and present the correlation between the concept of *kirumigal* as described in *Siddha* literature and recent scientific advancements in microbiota (e.g., gut microbes). (2 hours).

Each group should present the assigned topic before the class. (1 hour)

Practical Training 4.2 : *Envagai Thervu*

Total duration of the activity is 5 hours

The teacher will demonstrate how to perform a clinical assessment by applying the principles of *Envagai Thervu*, explaining each step of the process. (30 minutes)

Each student should perform *Envagai thervu* to atleast 15 patients in OPD / IPD. (4 hours)

Each student will present their findings to the concerned faculty for evaluation and conclusion. (30 minutes)

Practical Training 4.3 : Interpretation of *Manikadai nool*

Total duration: 2 hours

Activity 1: (1 hour)

Demonstration by teacher (10 minutes)

Teacher will allocate minimum 3 patients (real / simulated patients) to each student. The student will be asked to apply the tool *Manikadai nool* in patients . Students will do the comparative analysis of the findings with respect to *Siddha* literature. (50 minutes).

Activity 2: (1 hour) Conduct a group discussion on anthropometric measurements and their clinical relevance (1 hour)
Practical Training 4.4 : <i>Marana kurigunangal</i> - Literature review
Total duration of the activity is 2 hours Students will be divided into groups, with each group assigned five <i>Marana kurigunangal</i> (fatal signs and symptoms mentioned in <i>Siddha</i> literature). They will analyse and correlate their assigned <i>Marana kurigunangal</i> with that of Modern medical literature. (1 hour 30 minutes) At the end of the activity, each group should prepare and submit their work as a report to the teacher. (30 minutes)
Practical Training 4.5 : Group discussion on <i>Thodakurikunangal</i>
Total duration of the activity is 2 hours The teacher will divide the students into groups, assigning each group a specific disease scenario related to <i>Thodakurikunangal</i> (complications) for discussion. Each group will engage in a guided discussion under the supervision of the teacher. (1 hour) Following the discussion, each group will prepare and submit a report to the teacher. (1 hour)
Practical Training 4.6 : <i>Avathaigal</i> and <i>Marana kurigunangal</i>
Total duration: 6 hours Activity 1: 2 hours Conduct a brainstorming session on fatal conditions of an individual based on Saliva, Taste, Voice, Vision Hearing, Smell, Faeces, Quality of semen and twitching (such as modern evaluation tools etc.) Activity 2: 2 hours Students will be divided into groups. Each group will be assigned a specific topic from fatal conditions of an individual based on Saliva, Taste, Voice, Vision Hearing, Smell, Faeces, Quality of semen and twitching . Each group will do literature review in their assigned topic, correlate with scientific literature and present to the teacher. Activity 3: 2 hours Students will be divided into gorups. Each group will be assigned 2 or 3 concepts of <i>Avathaigal</i> (as per <i>thirattu & vallathy naadi</i>) mentioned in <i>Siddha</i> literature. Each group will do literature review in their assigned topic, correlate with scientific literature and present to the teacher.
Experiential learning Activity
Experiential-Learning 4.1 : <i>Neikkuri</i> analysis

Total duration of the activity is 5 hours
 Students will be divided into groups, with each group assigned a specific disease. Each group must perform the *Neikkuri* analysis on a minimum of 30 patients and document the findings. (4 hours)
 Following the procedure, each group should compile and analyse the collected data, and submit a detailed report to the teacher. (1 hour)

Experiential-Learning 4.2 : Naadi Workshop

Organize a *Naadi* workshop for the students by inviting expert(s) in the field.
 Total duration of the activity is 8 hours.
 Sample schedule of the workshop:
 Introduction (1 hour)
 Demonstration (2 hours)
 Interpreting Pulse Readings (2 hours).
 Practical Application (2 hours 30 minutes)
 Q & A session and conclusion (30 minutes)

Experiential-Learning 4.3 : Manikadai Nool assessment

Total duration of the activity is 4 hours
 Students will be divided into groups, with each group assigned a specific disease. Each group must perform the *Manikadai Nool* procedure on a minimum of 30 patients and document the findings. (3 hours)
 Following the procedure, each group should compile and analyse the collected data, and submit a detailed report to the teacher. (1 hour)

Experiential-Learning 4.4 : Presentation of the Thodakurikungal

Total duration of the activity is 3 hours
 Students will be divided into groups. Each group will be asked to prepare and present a topic on *Thodakurikunangal* (Complications) with scientific background, case details etc, . (2 hours 30 minutes)
 Q & A Session (30 minutes)

Experiential-Learning 4.5 : Field visit to palliative care centres

Total duration of the activity is 6 hours

Teacher will arrange a field visit to palliative care centre. Students will be divided into groups. Each group will observe terminally ill patients, note down the signs & symptoms and compare the findings with that of <i>Marana kurigunangal</i> mentioned in <i>Siddha</i> literature. At the end of the activity, each group should submit a report to the teacher.	
Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks per credit. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C I. Quiz or Multiple Choice Questions - 10 questions (10 x 1 = 10 Marks) II. Short answer questions - 2 questions (2 x 5 = 10 marks) III. Structured Long Answer Questions - 2 questions (2 x 10 = 20 marks) IV. <i>Envagai Thervu</i> assessment in patient (1 case will be given to each student) (1 x 10 = 10 marks) Or Field visit report evaluation: The report will be evaluated on the basis of active participation during the visit, observation book detailing the observations during the visit, and record-keeping. (20 marks) Or Any practical in converted form can be taken for assessment (25 marks) and Any of the experiential as portfolio/ reflections /presentations can be taken as an assessment (25 marks)	4

Module 5 : Siddha Dietetics, Lifestyle and Medical Ethics

Module Learning Objectives

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

- Apply *Siddha* rules for longevity and *Pathiyam* / *Apathiyam* with respect to body constitution, disease conditions and *Siddha* medicines.
- Review the *Siddha* literature related to *Kaala ozhukkam* (Season), *Naal Ozhukkam* (Daily routine) and *Pini Anuga Vithi* (Siddha rules for longevity) with scientific background.
- Observe and update their knowledge in advanced technologies used in food research institute/industry.
- Deliver awareness speech to patients and public on *Kaala ozhukkam* (Season), *Naal Ozhukkam* (Daily routine) and *Pini Anuga Vithi* (Siddha rules for longevity).

Unit 1 Siddha diet for Mukktram

- 5.1.1. Siddha diet for *Vali/vatham*, *Azhal/Pitham* & *Iyam/Kabam* diseases
- 5.1.2. *Satthuva*, *Raso* & *Thamo guna porulgal*
- 5.1.3. *Vaatha*, *pitha* & *kaba noiyai neekum porulgal*, *Piththathai*, *samapaduthum porulgal*,
- 5.1.4. *Uppu*, *kari*, *keerai*, *rasam*, *vatral*, *oorugaai vagaigal* for *vali*, *azhal* and *iya dhegigal*.

References: 4,5,14,20,49,50,77

3A	3B	3C	3D	3E	3F	3G
CO5	Describe the role of <i>Siddha</i> diet for managing <i>Vali</i> , <i>Azhal</i> and <i>Iyam</i> diseases and <i>Satthuva</i> , <i>Raso</i> , and <i>Thamo guna porulgal</i> in promoting physical and mental well-being.	2	Lecture	CC	Knows-how	L,L&PPT
CO5	Analyse and explain the dietary recommendations for different <i>Yaakkai</i> (<i>Vali</i> , <i>Azhal</i> & <i>Iyam</i>) types based on <i>Siddha</i> principles and correlate them with modern nutritional science	7	Practical Training 5.1	PSY-GUD	Shows-how	LS,TBL, ML

CO5	Describe food / diet research methodologies, diet formulation, quality control, research / industry operations related to diet/nutrition and health.	8	Experiential-Learning 5.1	CAP	Does	CBL,FV, TBL
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Unit 2 Pathiyam muraigal

5.2.1. *Ichhaapathiyam, Kadumpathiyam, Migu kadum pathiyam*

5.2.2. *Pathiyam for vatham, pitham and kabam diseases*

5.2.3. *Thiridhodathai sampaduthum porulgal*

5.2.4. *Iraichi vagaigalul pathiya abathiyam*

5.2.5. *Bogar pathiya murai, Marunthunnumbodhu abathiyam*

5.2.6. *Neervaazhavanavatrul pathiya abathiyam*

5.2.7. *Surathirku aagaatha pathaarthangal, athisaaram kiraani muthiya noigalukku pathiyam, apathiyam, Moolaroga pathiyam, Nanjai murikkum porulgal*

5.2.8. *Kuliyal thaila pathiyam*

References: 6,49,50,77,78

3A	3B	3C	3D	3E	3F	3G
CO5	Describe significance of <i>pathiyam</i> in disease prevention and management and to describe the recommended and restricted foods during illness and taking medicines based on <i>Siddha</i> principles.	2	Lecture	CAN	Knows-how	L&PPT ,L
CO5	Analyse and evaluate dietary and nutritional requirements through a scientific and evidence-based approach, and develop tailored diet recommendations	5	Practical Training 5.2	PSY-GUD	Shows-how	ML,LS
CO5	Design independently, a personalized <i>Siddha</i> guidelines on <i>pathiyam</i> / <i>apathiyam</i> for patients	4	Experiential-Learning 5.2	PSY-ORG	Does	LS,CBL, ML
CO5	Analyse the <i>pathiyam/apathiyam</i> mentioned in <i>Siddha</i> literature for metals, minerals and medicines with scientific rationale	4	Experiential-Learning 5.3	CAP	Does	TBL,LS, ML

Unit 3 Kaala ozhukkam

5.3.1. Diet for *perumpozhuthugal* (Seasons).

References: 4,20,77

3A	3B	3C	3D	3E	3F	3G
CO5	Describe the recommended and restricted diet and advices to be followed in different seasons to maintain optimal health.	2	Lecture	CC	Does	L,L&PPT
CO5	Design <i>Siddha</i> seasonal dietary regimen for prevention and management of diseases.	4	Practical Training 5.3	PSY-GUD	Shows-how	ML,PER,LS
CO5	Conduct a public awareness programme on <i>Kaala ozhukkam</i> including food and life style modification for prevention and management of seasonal diseases	5	Experiential-Learning 5.4	PSY-MEC	Does	TBL,PER

Unit 4 Naal ozhukkam and Pini anuga vidhi

5.4.1. *Kuliyal thaila pathiyam Appiyanganam- Pasu nei muzhukku, Pancha karpam, Aagum & aaga porul* during oil bath, *icchapathiyam, uppilla pathiyam, Thailai muzhukkirkku thagaathavargal*.

5.4.2. *Kankalukku anjanam*

5.4.3. *Athikaalai vizhippin gunam*

5.4.4. *Vizhitha udan paarkathakka & paarkathagaatha porulgal*

5.4.5. *Naal ozhukkam* (Daily routines)

5.4.6. *Pini Anuga Vidhi*

References: 4,20,49,50,77

3A	3B	3C	3D	3E	3F	3G
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CO5	Describe the recommended and restricted diet and advices to be followed as daily routine to maintain optimal health.	2	Lecture	CC	Knows-how	L,L&PPT
CO5	Analyse the daily routine activity under <i>Naal ozhukkam</i> and <i>Pini anuga vithi</i> with scientific rationale.	4	Practical Training 5.4	PSY-GUD	Shows-how	TBL,ML,LS
CO5	Conduct a public awareness programme on <i>Naal ozhukkam</i> and <i>Pini anuga vithi</i>	5	Experiential-Learning 5.5	PSY-MEC	Does	PER,TBL

Unit 5 Medical ethics, common laws and regulations applicable to clinical practice

5.5.1. Medical ethics, common laws and regulations applicable to clinical practice

References: 7

3A	3B	3C	3D	3E	3F	3G
CO7	Describe Medical ethics, common laws and regulations mentioned in National Commission for Indian System of Medicine (Ethics and Registration) Regulations, 2023.	2	Lecture	CC	Knows-how	L,L&PPT

Practical Training Activity

Practical Training 5.1 : *Yaakkai*-Based Diet: A Scientific Approach

Total duration of the activity is 7 hours

Students will be divided into groups, each assigned one *Yaakai/Thegi* type. Students should compile a list of food items that are traditionally recommended and avoided for their *Yaakai/Thegi* type in *Siddha* literature. (1 hour)

Students should research the modern nutritional aspects of the foods identified earlier and analyse why these foods are suitable/unsuitable for the assigned *Thegi* using principles from modern nutrition (e.g., macronutrients, thermogenic effect, metabolic rate, gut health) and the characteristics of the *Yaakai/Thegi*. (5 hours)

At the end of the activity each group should present their findings to the teacher. (1 hour)

Practical Training 5.2 : Nutritional and calorie requirements

Total duration of the activity is 5 hours
 Students will be divided into groups, with each group assigned a minimum of two topics from diet / nutrition for Diabetes Mellitus, Kidney diseases, Gastrointestinal diseases, Cardiovascular diseases, Liver diseases, Infections and fever, Thyroid diseases, Arthritis, and Cancer and any other diseases assigned by the teacher. Each group will review and prepare diet recommendations tailored to their assigned topics in scientific approach. (2 hours per topic)
 At the end of the activity, students will present their recommendations to the class. (1 hour)

Practical Training 5.3 : Seasonal *Siddha* dietetics

Total duration of the activity is 4 hours
 The teacher will explain the importance of *Siddha* dietetics for seasonal variations with respect to body constitution, disease prevention and management. (15 minutes)
 Students will be divided into groups, with each group assigned a specific *Perumpozhudhu* (season). Each group will analyse the *Siddha* dietary regimen appropriate for their assigned season, focusing on its alignment with the concept of *Agni* (digestive fire) and providing a scientific rationale for the recommended practices. (1 hour 30 minutes)
 Each group will be assigned a specific seasonal disease. They will do *Siddha* literature review on prevention and management aspects with scientific rationale. (1 hour 30 minutes)
 Class presentation (45 minutes)

Practical Training 5.4 : *Naal Ozhukkam* and *Pini Anuga Vithi*

Total duration of the activity is 4 hours
 Introduction & Group Formation: Teacher will explain *Naal Ozhukkam* & *Pini Anuga Vithi* concepts. Students will be divided into groups. Each group will be assigned with two guidelines. Groups will be allowed to discuss within about the action plan. (30 minutes)
 Group activity: Groups will review their assigned topics with scientific rationale for supporting the practices. (3 hours)
 Presentation: Each group will present their topic to the class. (30 minutes)

Experiential learning Activity

Experiential-Learning 5.1 : Field Visit to a Food/Diet-Based Research Institution or Industry

Total duration of the activity is 8 hours
 Tentative programme schedule:
 Introduction by the host organization about their research focus and industry operations. Safety instructions and protocol briefing. (1 hour)
 Visit to different departments (procurement, production, quality control, packaging, distribution etc.). (5 hours)
 Interaction with dietitians / nutritionists / research scientists. (1 hour)
 Recording observations and key learnings and submission of report. (1 hour)

Experiential-Learning 5.2 : <i>Pathiyam</i> / <i>Apathiyam</i> recommendation for patients	
Total duration of the activity is 4 hours Each student will recommend the <i>pathiyam</i> and <i>apathiyam</i> (Do's and Dont's of food and life style) for minimum 10 - 15 patients either in the OPD (Outpatient Department) or IPD (Inpatient Department). (3 hours 30 minutes) Document the recommendations in their respective hospital records and students log book. (30 minutes)	
Experiential-Learning 5.3 : Scientific analysis of diet regulations for metals, minerals and <i>Siddha</i> formulations	
Total duration of the activity is 4 hours Students will be divided into groups. Each group is required to select a minimum of three items—which can be herbs, metals, minerals, or <i>Siddha</i> formulations—for which <i>pathiyam</i> / <i>apathiyam</i> are mentioned in <i>Siddha</i> literature. (30 minutes) Evaluate and elaborate on the possible scientific rationale behind the recommended practices, correlating them with modern pharmacology, biochemistry, or nutritional science wherever applicable. (3 hours) Classroom presentation (30 minutes)	
Experiential-Learning 5.4 : Public awareness programme on <i>Kaala ozhukkam</i>	
Total duration: 5 hours Students will be divided into groups. Each group should perform the following activities: Activity 1: Public awareness speech on <i>Kaala ozhukkam</i> including seasonal foods and lifestyle modification for prevention and management of seasonal diseases. (2 hours) Activity 2: Preparation and display of IEC materials (Poster / Flex/ Videos etc.) on <i>Kaala ozhukkam</i> including seasonal foods and lifestyle modification for prevention and management of seasonal diseases in the OPD / Hospital premises. (3 hours)	
Experiential-Learning 5.5 : Public awareness programme on <i>Naal ozhukkam</i> and <i>Pini anuga vithi</i>	
Total duration: 5 hours Students will be divided into groups. Each group should perform the following activities: Activity 1 : Awareness speech on <i>Naal ozhukkam</i> for public / patients. (1 hour) Activity 2 : Awareness speech on <i>Pini anuga vithi</i> for public/ patients/ students. (1 hour) Activity 3: Preparation and display of IEC materials (Poster / Flex / Videos etc.) in the OPD / Hospital premises on <i>Naal ozhukkam</i> and <i>Pini anuga vithi</i> (3 hours)	
Modular Assessment	

Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks per credit. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C I. Class presentation on <i>Siddha</i> dietetics and lifestyle (50 marks) The teacher will assign a topic related to Siddha dietetics, lifestyle for students to present, incorporating both Siddha and modern perspectives. Evaluation methods 1. Content and Organization (10 marks): Clear introduction, logical structure, relevant content, and strong conclusion. 2. Clarity and Delivery (10 marks): Clear speech, engagement, good pacing, and positive body language. 3. Visual Aids (10 marks): Effective, relevant visuals, good design, well integrated. 4. Audience Interaction (10 marks): Engages and responds well to audience questions. 5. Time Management (10 marks): Stays within time limits and allocates time appropriately. Or I. Multiple Choice Questions - 5 questions (5 x 1 = 5 marks) II. Short answer questions - 3 questions (3 x 5 = 15 marks) III. Structure Long Answer questions - 1 question (1 x 10 = 10 marks) IV. Viva - 10 questions (10 x 2 = 20 marks) Or Any practical in converted form can be taken for assessment (25 marks) and Any of the experiential as portfolio/ reflections /presentations can be taken as an assessment (25 marks)	4

Module 6 : Common Siddha Formulations and External Therapies

Module Learning Objectives

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

Enhance their knowledge on choosing appropriate *Siddha* internal (with supportive pharmacological evidence) & external formulations including therapies for treatment and medical ethics.

Perform *Siddha* external therapies.

Identify and apply *Siddha* internal medicines and external therapies in the clinical setting.

Unit 1 Aga Marunthugal Part I

6.1.1. *Kudineer* (Decoction): *Kabasura kudineer, Nilavembu kudineer, Mandoorathy kudineer, Nerunjal kudineer.*

6.1.2. *Vadagam* (Lozenge / troche): *Inji Vadagam, Thalishathi vadagam*

6.1.3. *Chooranam* (Powder): *Ashtathy Chooranam, Amukkara chooranam, Ilavangathy chooranam, Elathy chooranam, Kazharchi chooranam, Thayir chundi chooranam, Thalishathy Chooranam, Nilavagai chooranam, Pancha deepakini chooranam, Parangippattai chooranam, Seeraga Chooranam, Venthamarai Chooranam, Seenthil Chooranam, Sagala Noi chooranam, Drakshadhi chooranam*

6.1.4. *Nei* (Medicated Ghee): *Adathodai nei, Brahmi nei, Senkottai nei, Thanneer vittan nei, Thoothuvalai nei, Vallarai nei*

6.1.5. *Dravagam/Theeneer* (Distilled extracts) : *Sanka dravagam, Oma theeneer, Sombu theeneer*

6.1.6. *Rasayanam* (Dry Confection): *Thippili rasayanam, Gandhaka rasayanam, Parangipattai rasayanam*

6.1.7. *Ilagam* (Electuary) : *Amukkara Ilagam, Karunai Ilagam, Thetran kottai Ilagam, Vilvathy Ilagam, Venpoosani Ilagam, Mahavallathi Ilagam*

6.1.8. *Maathirai* (Pills / Tablet) : *Karuppu Vishnu Chakkara mathirai, Santha chandhrodhaya mathirai, Chithiramoola kuligai, Neerkovai mathirai, Brammanandha bairavam, Vasantha kusumakara mathirai, Swasakudori mathirai, Amirthadhi mathirai, Jalodhaari mani, Soolai kudoram, Vadha ratchasan mathirai*

References: 8,9,10,22,24,25,26,27,28,29,30,31,32,33,34,35,44,45

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4	Analyse the therapeutic usage of <i>Siddha</i> formulations mentioned in the M6:U1	2	Lecture	CC	Knows-how	LS,L&GD,L,SDL
CO1,CO2,CO3,CO4	Analyse and discuss the 32 types of internal medicines in <i>Siddha</i> medicine, with a focus on their formulation and therapeutic application based on <i>Suvai</i> (taste), <i>Veeriyam</i> (potency), <i>Gunam</i> (qualities), their effect on <i>Mukkutram</i> (<i>Vali</i> , <i>Azhal</i> , <i>Iyam</i>), and the <i>Udal Thathukkal</i> (seven body constituents),	1	Practical Training 6.1	PSY-GUD	Does	TBL,DIS
CO1,CO2,CO3,CO4	Classify <i>Siddha</i> medicines used in clinical practice based on their <i>gunam</i> (qualities), metallic content, toxic metal presence, <i>chaaru</i> (juice) used, inclusion of Schedule E drugs, and purgative components, thereby enhancing their ability to assess the safety, composition, and pharmacological relevance of these formulations in clinical OPD setting	3	Experiential-Learning 6.1	CAN	Does	ML,LS,T PW

Unit 2 Aga Marunthugal Part II

6.2.1. *Ennai/Thailam* (Medicated oil): *Kazharchi thailam*, *Siddhathi ennai*, *Arakku thailam*, *Chithiramoola thailam*, *Chitramutti thailam*, *Chukku thailam*, *Ulundu thailam*, *Sivappu kukkil thailam*, *Peenisa thailam*, *Vadhakesari thailam*, *Laguvidamutti thailam*, *Mayana thailam*

6.2.2. *Mezhugu* (Medicinal wax): *Rasaganthi mezhugu*, *Idivallathy mezhugu*, *Gunmakudori mezhugu*, *Nandhi mezhugu*, *Nava uppu mezhugu*

6.2.3. *Kuzhambu* (Medicated semisolid mixture): *Agasthiyar kuzhambu*

6.2.4. *Pathangam* (Sublimate): *Parangipattai pathangam*, *Thirumoorthi pathangam*

6.2.5. *Karpam* : *Irunelli karpam*, *Ayabringaraja karpam*

6.2.6. *Parpam* (Calcined oxide): *Kukil parpam*, *Sangu parpam*, *Silasathu parpam*, *Nandukkal parpam*, *Palagarai parpam*, *Pavala parpam*, *Muthuchippi parpam*

6.2.7. *Chendhooram* (Calcined red oxide) : *Arumuga chendhooram*, *Aya kantha chendhooram*, *Annabedhi chendhooram*, *Chandamarutha chendhooram*, *Gowri chinthamani chendhooram*, *Sivanar amirtham*, *Padigalinga chendhooram*, *Jala manjari*

6.2.8. *Karuppu*: *Kasthuri karuppu*, *Pattu karuppu*, *Thalaga karuppu*

References: 8,9,10,22,28,30,36,37,38,39,40,41,42,43,45

3A	3B	3C	3D	3E	3F	3G
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CO1,CO2,CO3,CO4	Analyse the therapeutic usage of <i>Siddha</i> formulations mentioned in the M6:U2	2	Lecture	CC	Knows-how	L&GD,L,SDL,FC,LS
CO1,CO2,CO3,CO4	Analyse and discuss the 32 types of internal medicines in <i>Siddha</i> medicine, with a focus on their formulation and therapeutic application based on <i>Suvai</i> (taste), <i>Veeriyam</i> (potency), <i>Gunam</i> (qualities), their effect on <i>Mukkutram</i> (<i>Vali, Azhal, Iyam</i>), and the <i>Udal Thathukkal</i> (seven body constituents),	1	Practical Training 6.2	PSY-GUD	Shows-how	DIS,TBL
CO1,CO2,CO3,CO4	Classify <i>Siddha</i> medicines based on their clinical indications and the physiological systems they act upon, and correlate their pharmacological actions with potential modern receptor targets, enhancing integrative understanding of drug mechanisms	3	Experiential-Learning 6.2	PSY-ADT	Does	LS,ML,T PW

Unit 3 Pura marunthugal and pura maruthuva muraigal Part I

- 6.3.1. *Kattu* (Dressing or bandaging)
- 6.3.2. *Pattru* (Poultice)
- 6.3.3. *Ottradam* (Fomentation)
- 6.3.4. *Poochu* (Topical application)
- 6.3.5. *Vethu* (Inhalation or exposure to steam)
- 6.3.6. *Pottanam* (Medicated pouches)
- 6.3.7. *Kali* (Paste)
- 6.3.8. *Pugai* (Fumigation)
- 6.3.9. *Mai* (Corrylium)
- 6.3.10. *Podi thimirthal* (Powder anointing / Powder smearing)
- 6.3.11. *Kalikkam* (Eye drops)
- 6.3.12. *Nasiyam* (Nasal drops)
- 6.3.13. *Oothal* (Blowing)
- 6.3.14. *Naasikaabaranam* (Inhalation or exposure to steam)
- 6.3.15. *Kalimbu* (Ointment)
- 6.3.16. *Seelai* (Medicated guaze / Plaster)

References: 9,11,12

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4	Describe <i>Kattu</i> (Dressing or bandaging), <i>Patru</i> (Poultice), <i>Ottradam</i> (Fomentation), <i>Poochu</i> (Topical application) and <i>Vethu</i> (Inhalation or exposure to steam)	1	Lecture	CC	Knows-how	L
CO1,CO2,CO3 ,CO4	Describe <i>Pottanam</i> (Medicated pouches), <i>Kali</i> (Paste), <i>Pugai</i> (Fumigation), <i>Mai</i> (Corrylium) and <i>Podi thimirthal</i> (Powder anointing / Powder smearing)	1	Lecture	CC	Knows-how	L&GD,L
CO1,CO2,CO3 ,CO4	Describe <i>Kalikkam</i> (Eye drops), <i>Nasiyam</i> (Nasal drops), <i>Oothal</i> (Blowing), <i>Naasikaabaranam</i> (Inhalation or exposure to steam), <i>Kalimbu</i> (Ointment) and <i>Seelai</i> (Medicated guaze / Plaster)	1	Lecture	CC	Shows-how	L_VC,L&PPT ,SIM, L&GD,L
CO1,CO2,CO3 ,CO4	Perform <i>Kattu</i> (bandage) procedure in patients	2	Practical Training 6.3	PSY-MEC	Shows-how	D-BED,CBL,D,SIM
CO1,CO2,CO3 ,CO4	Apply <i>Ottradam</i> (Foementation) procedure in patients	4	Practical Training 6.4	PSY-GUD	Does	CBL,D-BED,D
CO1,CO2,CO3 ,CO4	Perform <i>Podi thimirthal</i> (Powder smearing) procedure.	3	Practical Training 6.5	PSY-MEC	Shows-how	D,TBL,FV,D-BED,CBL
CO1,CO2,CO3 ,CO4	Perform <i>Kattu</i> (Bandage) procedure in patients	2	Experiential-Learning 6.3	PSY-MEC	Does	CBL,TBL
CO1,CO2,CO3 ,CO4	Perfom <i>Ottradam</i> (Foementation) procedure in patients	4	Experiential-Learning 6.4	CAP	Knows-how	TBL
CO1,CO2,CO4	Perform <i>Podi thimirthal</i> (Powder anointing / Powder smearing) procedure in patients	3	Experiential-Learning 6.5	PSY-MEC	Does	TBL,CBL

CO1,CO2,CO3,CO4	Perform <i>Vethu</i> (Inhalation or exposure to steam) / <i>Pugai</i> (Fumigation)	3	Experiential-Learning 6.6	PSY-MEC	Does	TBL,CBL
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Unit 4 Pura marunthugal and pura maruthuva muraigal Part II

- 6.4.1. *Neer* (Medicated water)
- 6.4.2. *Vartti* (Medicated wick)
- 6.4.3. *Suttigai* (Cauterization)
- 6.4.4. *Salaakai idal* (Probing)
- 6.4.5. *Pasai* (Ointment / cream)
- 6.4.6. *Thokkanam* (Massage therapy)
- 6.4.7. *Podi* (Dusting powder)
- 6.4.8. *Murichal* (Therapeutic fracture manipulation)
- 6.4.9. *Keeral* (Incision)
- 6.4.10. *Kaaram* (Caustic ablation)
- 6.4.11. *Attai Vidal* (Leech therapy)
- 6.4.12. *Aruvai Sikitchai* (Surgical procedures)
- 6.4.13. *Kombu Kattal* (Bone setting)
- 6.4.14. *Urinchal* (Suction / Aspiration)
- 6.4.15. *Kuruthi vangal* (Blood-letting)
- 6.4.16. *Peechu* (Enema)

References: 9,11,12

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4	Describe <i>Neer</i> (Medicated water), <i>Vartti</i> (Medicated wick), <i>Suttigai</i> (Cauterization) and <i>Salaakai idal</i> (Probing) and <i>Pasai</i> (Ointment / cream)	1	Lecture	CC	Knows-how	TBL,L_V C,L,L&P PT ,L&GD

CO1,CO2,CO3,CO4	Describe <i>Thokkanam</i> (Massage therapy), <i>Podi</i> (Dusting powder), <i>Murichal</i> (Therapeutic fracture manipulation), <i>Keeral (Incision)</i> and <i>Kaaram</i> (Caustic ablation)	1	Lecture	CC	Knows-how	L&PPT ,L ,L&GD,L _VC
CO1,CO2,CO3,CO4	Describe <i>Attai Vidal</i> (Leech therapy), <i>Aruvai Sikitchai</i> (Surgical procedures), <i>Kombu Kattal</i> (Bone setting), <i>Urinchal</i> (Suction / Aspiration), <i>Kuruthi vangal</i> (Blood-letting) and <i>Peechu</i> (Enema)	1	Lecture	CC	Shows-how	L&PPT ,L ,L _VC,L &GD
CO1,CO2,CO3,CO4	Perform <i>Thokkanam</i> (Massage) procedure	4	Practical Training 6.6	PSY-MEC	Shows-how	CBL,TBL ,D,D-BED,SIM
CO1,CO2,CO3,CO4	Perform <i>Attai vidal</i> (Leech therapy) therapy	3	Practical Training 6.7	PSY-MEC	Shows-how	D,D-BED ,TBL,CB L
CO1,CO2,CO3,CO4	Perform <i>Peechu</i> (Enema) procedure	2	Practical Training 6.8	PSY-MEC	Shows-how	TBL,D,D-BED,CBL
CO1,CO2,CO3,CO4	Perform <i>Thokkanam</i> (Massage therapy) in patients	3	Experiential-Learning 6.7	PSY-MEC	Does	CBL,TBL
CO1,CO2,CO3,CO4	Perform <i>Attai vidal</i> (Leech therapy) in patients	3	Experiential-Learning 6.8	PSY-MEC	Does	CBL,TBL
CO1,CO2,CO3,CO4	Perform <i>Peechu</i> (Enema) in patients	2	Experiential-Learning 6.9	PSY-MEC	Does	TBL,CBL

Practical Training Activity

Practical Training 6.1 : Group Discussion/Debate on *Aga marunthugal*

Total duration of the activity is 1 Hour

Conduct a group discussion or debate on the various types of internal medicines among the 32 classified in Siddha medicine, focusing on their usage based on *Suvai* (Taste), *Veeriyam* (potency), *Gunam* (qualities), *Mukkutram* (*Vali, Azhal, Iyam*) , and the *Udal Thathukkal* (seven body constituents) they act upon.

Practical Training 6.2 : Discussion/Debate on *Aga marunthugal*

Total duration of the activity is 1 Hour

Conduct a group discussion or debate on the various types of internal medicines among the 32 classified in Siddha medicine, focusing on their usage based on *Suvai* (Taste), *Veeriyam* (potency), *Gunam* (qualities), *Mukkutram* (*Vali, Azhal, Iyam*) , and the *Udal Thathukkal* (seven body constituents) they act upon.

Practical Training 6.3 : *Kattu* (Bandage)

Total duration of the activity is 2 hours

Demonstration by teacher (30 minutes)

Students performance: Students will be divided into groups. Each group should perform *Kattu* (Bandage) procedure to atleast 2 patients / Simulated patients. (1 hour 30 minutes)

Practical Training 6.4 : *Ottradam*

Total duration of the activity is 4 hours

Patient selection and initial assessment (30 minutes)

Arrangement of materials and room set up (30 minutes)

Teacher demonstration (30 minutes)

Students performance: Students will be divided into groups. Each group should perform *Ottradam* (Foementation) procedure to atleast 2 patients. (2 hours)

Post procedure assessment and conclusion (30 minutes)

Practical Training 6.5 : *Podi thimirthal*

Total duration of the activity is 3 hours

Patient(s) selection and initial assessment (15 minutes)

Arrangement of materials and room set up (15 minutes)

Teacher demonstration (30 minutes)

Students performance: Students will be divided into groups. Each group should perform *Podi thimirthal* procedure to atleast 1 patient. (1 hour 30 minutes)

Conclusion (30 minutes)

Practical Training 6.6 : *Thokkanam* (Massage Therapy)

Total duration of the activity is 4 hours

Patient(s) selection and initial assessment (15 minutes) Arrangement of materials and room set up (15 minutes) Teacher demonstration (30 minutes) Students performance: Students will be divided into groups. Each group should perform <i>Thokkanam</i> procedure to atleast 2 patients. (2 hour 30 minutes) Conclusion (30 minutes)
Practical Training 6.7 : Attai vidal (Leech therapy)
Total duration of the activity is 3 hours Patient(s) selection and initial assessment (15 minutes) Arrangement of materials and room set up (15 minutes) Teacher demonstration (30 minutes) Students performance: Students will be divided into groups. Each group should perform <i>Attai vidal</i> (Leech therapy) procedure to atleast 1 patient. (2 hours)
Practical Training 6.8 : Peechu (Enema)
Total duration of the activity is 2 hours Patient(s) selection and initial assessment (15 minutes) Arrangement of materials and room set up (15 minutes) Teacher demonstration (15 minutes) Performance of <i>Peechu</i> (Enema) procedure by students as small groups (1 hour) Conclusion (15 minutes)
Experiential learning Activity
Experiential-Learning 6.1 : Analysis of Siddha Medicines
Total duration of the activity is 3 hours Students will be divided into groups, with each group assigned to a specific OPD. They will classify the <i>Siddha</i> internal medicines used in their respective OPDs based on various criteria, including <i>Gunam</i> (qualities), presence of metallic ingredients, presence of any toxic metals, <i>chaaru</i> (juice) used for grinding, inclusion of Schedule E drugs, presence of purgative ingredients, and any additional parameters provided by the teacher. At the end of the activity, students will submit a report on the work assigned to the teacher.
Experiential-Learning 6.2 : Mapping Siddha Medicines to Modern Mechanisms

Total duration of the activity is 3 hours
 Students will be divided into groups and each group will be assigned a minimum of three types of *Siddha* medicines. For each type, two medicines will be selected. Those can be chosen from Module 6: Unit 1 / Unit 2 / OPD medicines / *Siddha* classical texts. (30 minutes)
 Each group will analyse the selected medicines with respect to clinical indications and primary organ or physiological system on which they exert their effects. (30 minutes)
 Following this, each group will correlate the activity of *Siddha* medicines using available scientific literature and pharmacological evidences. At the end of the activity each group should submit their findings as a report. (2 hours)

Experiential-Learning 6.3 : Clinical application of *Kattu* (Bandage)

Total duration of the activity is 2 hours
 Students will be divided into groups. Each group should perform *Kattu* (Bandage) procedure to atleast 5 patients

Experiential-Learning 6.4 : *Ottradam* (Foementation)

Total duration of the activity is 4 hours
 Students will be divided into groups. Each group should perform *Ottradam* (Foementation) procedure to atleast 5 patients.

Experiential-Learning 6.5 : Clinical application *Podi thimirthal* (Powder anointing / Powder smearing)

Total duration of the activity is 3 hours
 Students will be divided into groups. Each group should perform *Podi thimirthal* procedure to atleast 5 patients.

Experiential-Learning 6.6 : Clinical application of *Vethu* (Inhalation or exposure to steam) / *Pugai* (Fumigation)

Total duration of the activity is 3 hours
 Students will be divided into groups. Each group should perform *Vethu* (Inhalation or exposure to steam)/ *Pugai* (Fumigation) procedures to atleast 5 patients.

Experiential-Learning 6.7 : Clinical application of *Thokkanam* (Massage therapy)

Total duration of the activity is 3 hours
 Students will be divided into groups. Each group should perform *Thokkanam* (Massage therapy) procedure to atleast 5 patients.

Experiential-Learning 6.8 : Clinical application of *Attai vidal* (Leech therapy)

Total duration of the activity is 3 hours

Students will be divided into groups. Each group should perform <i>Attai vidal</i> (Leech therapy) procedure to atleast 5 patients.	
Experiential-Learning 6.9 : Clinical application of <i>Peechu</i> (Enema)	
Total duration of the activity is 2 hours Students will be divided into groups. Each group should perform <i>Peechu</i> (Enema) procedure to atleast 5 patients.	
Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks per credit. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C I. Short answer questions - 2 questions (2 x 5 = 10 marks) II. Long answer questions - 1 questions (1 x 10 = 10 marks) III. Application based question - 1 question (1 x 20 = 20 marks) IV. <i>Siddha</i> External Therapy procedure performance (any one) (1 x 10 = 10 Marks) Or Any practical in converted form can be taken for assessment (25 marks) and Any of the experiential as portfolio/ reflections /presentations can be taken as an assessment (25 marks)	4

Module 7 : Clinical Examinations, Other Traditional Systems and Health Programmes

Module Learning Objectives

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

Perform general and systemic clinical examinations of gastrointestinal, respiratory, cardiovascular, nervous, endocrine and locomotor systems.
Compare basic principles and therapeutic approaches of Ayurveda, Yoga & Naturopathy, Unani, Sowa Rigpa, Homoeopathy with that of Siddha system of medicine fostering an integrative understanding of diverse medical systems and their holistic approaches to health and wellness.
Obtain knowledge about National Health Programs relevant to Ayush in promoting public health, identifying key initiatives and their relevance to integrative health practices.

Unit 1 Modern clinical examinations

- 7.1.1. General clinical examination
- 7.1.2. Examination of the Respiratory system
- 7.1.3. Examination of the Gastrointestinal System
- 7.1.4. Examination of the Cardiovascular system
- 7.1.5. Examination of Nervous System
- 7.1.6. Examination of Endocrine system
- 7.1.7. Examination of Locomotor system

References: 13,14,15,46,51,59

3A	3B	3C	3D	3E	3F	3G
CO3	Describe the essential components of a general clinical examination	1	Lecture	CC	Knows-how	L_VC,L,L &PPT
CO3	Demonstrate general clinical examination	2	Practical	PSY-	Shows-	D-

			Training 7.1	GUD	how	BED,SIM
CO3	Perform general clinical examination a patient, accurately identifying normal and abnormal findings, and reflect on their experience to improve examination techniques and patient interaction skills.	2	Experiential-Learning 7.1	PSY-MEC	Does	CD,CBL
CO3	Describe the essential components of clinical examination of the Respiratory system.	1	Lecture	CC	Does	L_VC,L&PPT ,L&GD,L
CO3	Demonstrate a clinical examination of the Respiratory system	2	Practical Training 7.2	PSY-GUD	Shows-how	SIM,D-BED
CO3	Perform clinical examination of the Respiratory system based on the history of the patient, accurately identifying normal and abnormal findings, and reflect on their experience to improve examination techniques and patient interaction skills in the clinical setting	3	Experiential-Learning 7.2	PSY-MEC	Does	CD,CBL
CO3	Describe the essential components of clinical examination of Gasterointestinal system	1	Lecture	CC	Knows-how	L&PPT ,L
CO3	Demonstrate clinical examination of the Gastrointestinal system	2	Practical Training 7.3	PSY-GUD	Shows-how	SIM,D-BED
CO3	Perform clinical examination of the Gastrointestinal system based on the history of the patient, accurately identifying normal and abnormal findings, and reflect on their experience to improve examination techniques and patient interaction skills.	3	Experiential-Learning 7.3	PSY-MEC	Does	CBL,CD
CO3	Describe the essential components of clinical examination of the Cardiovascular system	1	Lecture	CC	Knows-how	L,L&GD, L&PPT ,L_VC
CO3	Demonstrate clinical examination of the Cardiovascular system	2	Practical Training 7.4	CC	Shows-how	SIM,D-BED
CO3	Perform clinical examination of the Cardio vascular system based on the history of the	3	Experiential-	PSY-	Does	CD,CBL

	patient, accurately identifying normal and abnormal findings, and reflect on their experience to improve examination techniques and patient interaction skills.		Learning 7.4	MEC		
CO3	Describe the essential components of clinical examination of the Nervous system	1	Lecture	CC	Knows-how	L&GD,L &PPT ,L,L_VC
CO3	Demonstrate clinical examination of the Nervous System	3	Practical Training 7.5	PSY-MEC	Shows-how	D-BED
CO3	Perform clinical examination of the Nervous system based on the history of the patient, accurately identifying normal and abnormal findings, and reflect on their experience to improve examination techniques and patient interaction skills.	4	Experiential-Learning 7.5	PSY-MEC	Does	CBL,CD
CO3	Describe the essential components of clinical examination of the Locomotor system	1	Lecture	CC	Knows-how	L,L&GD, L&PPT ,L_VC
CO3	Demonstrate clinical examination of the of the Locomotor system	3	Practical Training 7.6	PSY-GUD	Shows-how	SIM,D-BED
CO3	Perform clinical examination of the Locomotor system based on the history of the patient, accurately identifying normal and abnormal findings, and reflect on their experience to improve examination techniques and patient interaction skills.	3	Experiential-Learning 7.6	PSY-MEC	Does	CBL,CD
CO3	Describe the essential components of clinical examination of the Endocrine system	1	Lecture	CC	Knows-how	L,L&PPT
CO3	Demonstrate clinical examination of the Endocrine system	2	Practical Training 7.7	CAN	Shows-how	D-BED,D ,SIM
CO3	Perform clinical examination of the Endocrine system based on the history of the patient, accurately identifying normal and abnormal findings, and reflect on their experience to improve examination techniques and patient interaction skills.	3	Experiential-Learning 7.7	CAP	Does	CBL,CD

Unit 2 Introduction of the basic principles of Homeopathy, Unani, Ayurveda, Sowa Rigpa, Yoga and Naturopathy and their relevance in light of the basic principles of Siddha medicine.

7.2.1. Basic principles and therapeutic approaches of Homeopathy, Unani, Ayurveda, Sowa Rigpa, Yoga and Naturopathy, Traditional Chinese Medicine and their relevance with the basic principles of Siddha medicine

References: 53,54,55,56,57

3A	3B	3C	3D	3E	3F	3G
CO7	Describe the principles, diagnostic methods and treatment approaches of Ayurveda, Yoga & Naturopathy, Unani, Sowa Rigpa and Homoeopathy.	2	Lecture	CC	Knows-how	L,SDL,L &PPT
CO7	Compare principles, diagnostic and treatment approaches from Ayurveda, Yoga & Naturopathy, Unani, Sowa Rigpa and Homoeopathy with that of Siddha Medicine.	4	Practical Training 7.8	PSY-GUD	Shows-how	ML,TBL, LS
CO7	Observe and document the treatment methodologies, diagnostic tools, and therapeutic approaches used in at least one traditional system of medicine (Homeopathy, Unani, Ayurveda, Sowa Rigpa, Yoga, or Naturopathy) by visiting a specialized institute, hospital, or college.	5	Experiential-Learning 7.8	PSY-MEC	Does	W,FV

Unit 3 Health Programmes / Govt initiatives with relevant to Ayush

7.3.1. National Ayush Mission:

- National Program for Prevention and Management of Osteoarthritis & other Musculoskeletal Disorders
- Integration of AYUSH with National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)
- SUPRAJA: AYUSH Maternal & Neo-natal Intervention
- VAYO MITRA: AYUSH Geriatric Healthcare Services
- AYURVIDYA: Healthy lifestyle through AYUSH for School Children
- AYUSH Mobile Medical Unit
- KARUNYA: AYUSH Palliative Services

- National Programme on AYUSH for Morbidity Management and Disability Prevention (MMDP) of Lymphatic Filariasis (Lymphedema)
- 7.3.2. Magapperu Sanjeevi Kit, Ilam Thalir Thittam, Tribal mobile unit of Tamilnadu
- 7.3.3. Magalir Jyothi project of Kerala

References: 16,17,18

3A	3B	3C	3D	3E	3F	3G
CO5	Describe key components, objectives, and of Ayush public health programmes -National AYUSH Mission (NAM), Magapperu Sanjeevi Kit, Ilam Thalir Thittam, Tribal mobile unit, Magalir Jyothi project	1	Lecture	CC	Knows-how	L&PPT ,L

Practical Training Activity

Practical Training 7.1 : General Examination

Total duration of the activity is 2 hours
 Teacher Demonstration: (30 minutes)
 Perform a thorough clinical examination of the respiratory system.
 Explain key steps such as inspection, palpation, percussion, and auscultation.
 Highlight and discuss any observed abnormal signs or findings.
 Student Performance: (1 hour 30 minutes)
 Students should perform the clinical examination in minimum 2 real or simulated patients.
 Conduct a step-by-step clinical examination of the respiratory system.
 Identify and interpret any abnormal signs noted during the examination.
 Document examination findings accurately and systematically.
 Present the findings in a clear, organized format.
 At the end of the activity students should submit a report to the teacher.

Practical Training 7.2 : Examination of the Respiratory System

Total duration of the activity is 2 hours
 Teacher Demonstration: (30 minutes)

Perform a thorough clinical examination of the respiratory system.
 Explain key steps such as inspection, palpation, percussion, and auscultation.
 Highlight and discuss any observed abnormal signs or findings.
 Student Performance: (1 hour 30 minutes)
 Students should perform the clinical examination in minimum 2 real or simulated patients
 Conduct a step-by-step clinical examination of the respiratory system.
 Identify and interpret any abnormal signs noted during the examination.
 Document examination findings accurately and systematically.
 Present the findings in a clear, organized format.
 At the end of the activity students should submit a report to the teacher.

Practical Training 7.3 : Clinical Examination of the Gastrointestinal System

Total duration of the activity is 2 hours
 Teacher Demonstration: (30 minutes)
 Perform a thorough clinical examination of the Gastrointestinal system.
 Explain key steps such as inspection, palpation, percussion, and auscultation.
 Highlight and discuss any observed abnormal signs or findings.
 Student Performance: (1 hour 30 minutes)
 Students should perform the clinical examination in minimum 2 real or simulated patients
 Conduct a step-by-step clinical examination of the Gastrointestinal .
 Identify and interpret any abnormal signs noted during the examination.
 Document examination findings accurately and systematically.
 Present the findings in a clear, organized format.
 At the end of the activity students should submit a report to the teacher.

Practical Training 7.4 : Clinical Examination of the Cardiovascular System

Total duration of the activity is 2 hours
 Teacher Demonstration: (30 minutes)
 Perform a thorough clinical examination of the Cardiovascular system.
 Highlight and discuss any observed abnormal signs or findings.
 Student Performance: (1 hour 30 minutes)

Students should perform the clinical examination in minimum 2 real or simulated patients.
Conduct a step-by-step clinical examination of the Cardiovascular system.
Identify and interpret any abnormal signs noted during the examination.
Document examination findings accurately and systematically.
Present the findings in a clear, organized format.
At the end of the activity students should submit a report to the teacher.

Practical Training 7.5 : Clinical Examination of the Nervous System

Total duration of the activity is 3 hours
Teacher Demonstration: (1 hour)
Perform a thorough clinical examination of the Nervous system
Highlight and discuss any observed abnormal signs or findings.
Student Performance: (2 hours)
Students should perform the clinical examination in minimum 2 patients
Conduct a step-by-step clinical examination of the Nervous system.
Identify and interpret any abnormal signs noted during the examination.
Document examination findings accurately and systematically.
Present the findings in a clear, organized format.
At the end of the activity, students should submit a report to the teacher.

Practical Training 7.6 : Clinical Examination of the Locomotor System

Total duration of the activity is 3 hours
Teacher Demonstration: (1 hour)
Perform a thorough clinical examination of the Locomotor system
Highlight and discuss any observed abnormal signs or findings.
Student Performance: (2 hours)
Students should perform the clinical examination in minimum 2 real or simulated patients
Conduct a step-by-step clinical examination of the Locomotor system.
Identify and interpret any abnormal signs noted during the examination.
Document examination findings accurately and systematically.
Present the findings in a clear, organized format.

At the end of the activity, students should submit a report to the teacher.

Practical Training 7.7 : Clinical Examination of the Endocrine System

Total duration of the activity is 2 hours

Teacher Demonstration: (30 minutes)

Perform a thorough clinical examination of the Endocrine system

Highlight and discuss any observed abnormal signs or findings.

Student Performance: (1 hour 30 minutes)

Students should perform the clinical examination in minimum 2 real or simulated patients

Conduct a step-by-step clinical examination of the Endocrine system.

Identify and interpret any abnormal signs noted during the examination.

Document examination findings accurately and systematically.

Present the findings in a clear, organized format.

At the end of the activity, students should submit a report to the teacher.

Practical Training 7.8 : Comparative Study of Traditional Healing Systems

Total duration of the activity is 4 hours

Students will be divided into teams, each team assigned one system: Ayurveda, Yoga & Naturopathy, Unani, Sowa Rigpa and Homoeopathy.

Each team will gather information on their assigned system's core principles, diagnostic methods, treatment approaches and other similarities and dissimilarities. (2 hours)

Each group will collaboratively draft a summary report synthesizing insights from all systems compared to Siddha Medicine.(1 hour)

Each team will present their findings, emphasizing similarities, differences, and unique contributions to holistic health. (1 hour)

Experiential learning Activity

Experiential-Learning 7.1 : General examination of the patient (3 hours)

Total duration of the activity is 2 hours

In the OPD/IPD, each student should independently perform general examination in a minimum 5 patients and identify any abnormal signs. Students should record and present the findings and propose further investigations if necessary for the patient. At the end of the activity, students should submit a report to the concerned faculty.

Experiential-Learning 7.2 : Examination of the Respiratory system

Total duration of the activity is 3 hours

Each student should do this activity in minimum five patients.

In the OPD/IPD, Students should independently perform examination of respiratory system in patients having symptoms related to respiratory system and identify any abnormal signs. They should record, present the clinical findings and propose further investigations if necessary for the patient. At the end of the activity, students should submit a report to the concerned faculty.

Experiential-Learning 7.3 : Examination of the Gastrointestinal System

Total duration of the activity is 3 hours

Each student should do this activity in minimum of five patients

In the OPD/IPD, Students should independently perform Examination of gastrointestinal system in patients having complaints related to the concerned system and identify any abnormal signs. They should record, present the clinical findings and propose further investigations if necessary for the patient. At the end of the activity, students should submit a report to the concerned faculty.

Experiential-Learning 7.4 : Examination of the Cardiovascular system

Total duration of the activity is 3 hours

Each student should do this activity in minimum five patients.

In the OPD/IPD, Students should independently perform cardiovascular examination in patients having symptoms related to cardiology and identify any abnormal signs. They should record, present the clinical findings and propose further investigations if necessary for the patient. At the end of the activity, students should submit a report to the concerned faculty.

Experiential-Learning 7.5 : Examination of the Nervous System

Total duration of the activity is 4 hours

Each student should do this activity in minimum five patients.

In the OPD/IPD, Students should independently perform neurological examination in patients having complaints related to neurology and identify any abnormal signs. They should record, present the clinical findings and propose further investigations if necessary for the patient. At the end of the activity, students should submit a report to the concerned faculty.

Experiential-Learning 7.6 : Examination of the Locomotor system

Total duration of the activity is 3 hours Each student should do this activity in minimum five patients. In the OPD/IPD, Students should independently perform examination of the locomotor system in patients having complaints related to the concerned system and identify any abnormal signs. They should record, present the clinical findings and propose further investigations if necessary for the patient. At the end of the activity, students should submit a report to the concerned faculty.	
Experiential-Learning 7.7 : Examination of the Endocrine System	
Total duration of the activity is 3 hours. Each student should do this activity in minimum five patients. In the OPD/IPD, Students should independently perform examination of endocrine system in patients having symptoms related to endocrinology and identify any abnormal signs. They should record, present the clinical findings and propose further investigations if necessary for the patient. At the end of the activity, students should submit a report to the concerned faculty.	
Experiential-Learning 7.8 : Exploring Traditional and Holistic Healing Systems: A Field Visit	
Total duration of the activity is 5 hours. Organize visits to at least one institute or Hospital or College specializing in Ayurveda / Yoga & Naturopathy / Unani / Sowa Rigpa / Homoeopathy. Observe the diagnostic tools, treatment methods, and therapies etc. used in the chosen system. Ask students to document their observations and insights, focusing on how different principles aim to restore balance and health. At the end of the activity, each student should give a report on field visit to the teacher.	
Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks per credit. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C I. Spotters of Images/video clips of Clinical Signs (10 questions: 10x1=10 Marks) II. Short answer questions - 2 questions: (2 x 5=10 marks) III. Mini Clinical Evaluation Exercise (Mini-CEX) (30 Marks) Evaluation Instructions for Mini Clinical Evaluation Exercise (Mini-CEX) Total Marks: 30	4

Time: 30 minutes

Assessment rubrics

1. History Taking (5 marks)

Elicits relevant history clearly and logically, with appropriate communication

2. Physical Examination Skills (5 marks)

Performs examination systematically, respectfully, and accurately

3. Clinical Reasoning and Diagnosis (5 marks)

Synthesizes findings to arrive at a logical and relevant diagnosis

4. Communication and Counseling Skills (5 marks)

Communicates effectively with patient; explains condition and plan clearly

5. Professionalism and Patient Interaction (5 marks)

Demonstrates empathy, respect, and maintains confidentiality

6. Overall Clinical Competence (5 marks)

Demonstrates integration of knowledge, skills, and attitude in real time

Or

Any practical in converted form can be taken for assessment (25 marks)

and

Any of the experiential as portfolio/ reflections /presentations can be taken as an assessment (25 marks)

Module 8 : Modern Diagnostic Methods

Module Learning Objectives

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

Describe the clinical application of modern clinical diagnostic techniques.

Analyse and interpret the results of common diagnostic tests and scan images.

Identify appropriate diagnostic tests for specific diseases or conditions based on presenting symptoms and differential diagnoses.

Unit 1 Haematological investigations

8.1.1. Complete Blood Count

8.1.2. Blood grouping and blood transfusion

8.1.3. Peripheral Blood Smear

8.1.4. Erythrocyte Sedimentation Rate

8.1.5. Reticulocyte Count

8.1.6. Bone Marrow Examination

8.1.7. Coagulation Studies

8.1.8. Hemoglobin Electrophoresis

8.1.9. Iron Studies

8.1.10. Vitamin B12 and Folate Levels

8.1.11. Direct and Indirect Coombs Test

8.1.12. Leukemia/Lymphoma Panel

References: 13,14,15,47,48

3A	3B	3C	3D	3E	3F	3G
CO3	Describe the key hematological investigations.	1	Lecture	CC	Knows-	L&PPT ,L

					how	
CO3	Interpret laboratory investigations pertaining to hematology	2	Practical Training 8.1	PSY-GUD	Shows-how	LRI
CO3	Analyse and interpret hematology laboratory reports, identify abnormal findings, propose probable etiologies, and formulate provisional and differential diagnoses	3	Experiential-Learning 8.1	PSY-MEC	Does	LRI

Unit 2 Biochemical investigations

8.2.1. General Metabolic Tests

8.2.1.1. Blood Glucose (Fasting, Postprandial, Random)

8.2.1.2 Glycated Hemoglobin (HbA1c)

8.2.1.3. Serum Electrolytes

8.2.1.4. Liver Function Tests (LFTs)

8.2.3. Kidney Function Tests

8.2.4. Lipid Profile

8.2.5. Cardiac Markers

8.2.6. Pancreatic Function Tests

8.2.7. Hormonal Assay

8.2.8. Protein and Enzyme Studies

8.2.9. Vitamin and Mineral Tests

8.2.10 Urine Biochemical Tests

8.2.11. Tumour markers

References: 13,14,15,47,48

3A	3B	3C	3D	3E	3F	3G
CO3	Describe biochemical investigations	2	Lecture	CC	Knows-how	L&PPT ,L,LRI

CO3	Interpret biochemical investigations	2	Practical Training 8.2	PSY-GUD	Shows-how	LRI,TBL
CO3	Analyse and interpret biochemical investigations	3	Experiential-Learning 8.2	PSY-MEC	Does	LRI

Unit 3 Immunological investigations

- 8.3.1. Autoimmune Disease Markers
- 8.3.2. Inflammatory Markers
- 8.3.3. Immunoglobulins
- 8.3.4. Allergy Tests
- 8.3.5. Transplant & Blood Compatibility Tests
- 8.3.6. Infectious Disease Serological tests

References: 13,14,15,47,48

3A	3B	3C	3D	3E	3F	3G
CO3	Describe Clinical lab investigations pertaining to immunology.	1	Lecture	CC	Knows-how	LRI,L&P PT ,L
CO3	Interpret clinical lab investigations pertaining to immunology	2	Practical Training 8.3	PSY-GUD	Shows-how	LRI
CO3	Analyse and interpret clinical laboratory investigations related to immunology	3	Experiential-Learning 8.3	PSY-MEC	Does	CBL,LRI

Unit 4 Microbiology - Detection of infectious agents

- 8.4.1. Gram Staining and Culture
- 8.4.2. Blood Culture & Sensitivity
- 8.4.3. Urine Culture & Sensitivity

- 8.4.4. Stool Culture
- 8.4.5. Sputum Examination
- 8.4.6. PCR (Polymerase Chain Reaction)
- 8.4.7. NAAT (Nucleic Acid Amplification Test)
- 8.4.8. PAP Smear

References: 13,14,15,47,48,52

3A	3B	3C	3D	3E	3F	3G
CO3	Describe Clinical lab investigations pertaining to infectious diseases	1	Lecture	CC	Knows-how	L&PPT ,LRI,L
CO3	Interpret Clinical lab investigations pertaining to infectious diseases	2	Practical Training 8.4	PSY-GUD	Shows-how	LRI
CO3	Analyse and interpret clinical laboratory investigations related to infectious diseases	3	Experiential-Learning 8.4	PSY-GUD	Does	CBL,LRI

Unit 5 Electrophysiological and Imaging Techniques in Cardiovascular and Neuromuscular Diagnostics

- 8.5.1. Electrocardiogram, Echocardiogram,
- 8.5.2. Electro Encephalogram, Electro Myogram, Nerve conduction studies

References: 13,14,15,47,48

3A	3B	3C	3D	3E	3F	3G
CO3	Describe the clinical application of Electrocardiogram, Echocardiogram, Electro Encephalogram, Electro Myogram, Nerve conduction studies	2	Lecture	CC	Knows-how	LRI,L&P PT ,L
CO3	Interpret Electrocardiogram, Echocardiogram	5	Practical	PSY-	Shows-	LRI,FC,T

			Training 8.5	GUD	how	BL
CO3	Interpret Electroencephalogram, Electromyogram, Nerve conduction studies	5	Experiential-Learning 8.5	PSY-MEC	Does	TBL,LRI

Unit 6 Imaging modalities in Medical Diagnostics

- 8.6.1. X-ray - Chest and joints
- 8.6.2. CT (with respect to Neurological and Respiratory diseases)
- 8.6.3. MRI (with respect to Neurological diseases)
- 8.6.4. Positron emission tomography (PET)
- 8.6.5. Single Photon Emission Computed Tomography (SPECT)

References: 13,14,15,47,48

3A	3B	3C	3D	3E	3F	3G
CO3	Elucidate the key components of X-ray, CT, MRI, Positron emission tomography (PET), Single Photon Emission Computed Tomography (SPECT), Radioiodine thyroid cancer imaging.	2	Lecture	CC	Knows-how	LRI,L&P PT ,L
CO3	Interpret images of Positron emission tomography (PET) and Single Photon Emission Computed Tomography (SPECT).	5	Practical Training 8.6	PSY-GUD	Shows-how	FC,LRI,B L,ML,X-Ray
CO3	Interpret images of X-ray (Chest and joints)	2	Experiential-Learning 8.6	PSY-MEC	Does	LRI,BL,FC
CO3	Interpret CT images with respect to neurology and respiratory system	2	Experiential-Learning 8.7	PSY-GUD	Does	LRI,FC,D ,BL
CO3	Interpret MRI images	2	Experiential-Learning 8.8	PSY-GUD	Does	BL,FC,D, LRI

Unit 7 Specialized Diagnostic Procedures

- 8.7.1. Barium studies, Endoscopy, Colonoscopy
- 8.7.2. Ultrasound, Doppler studies, Mammogram
- 8.7.3. Angiography

References: 13,14,15,19,47,48

3A	3B	3C	3D	3E	3F	3G
CO3	Describe the key components of Barium studies, Endoscopy, Colonoscopy, Ultrasound, Doppler studies, Mammogram, Angiography	1	Lecture	CC	Knows-how	L&PPT ,LRI
CO3	Enhance their knowledge on preparation, indications, contraindications, procedure, and clinical significance of Barium Studies, Endoscopy, and Colonoscopy through collaborative research and group presentations.	2	Practical Training 8.7	PSY-GUD	Shows-how	LS,TBL, ML
CO3	Enhance their knowledge on preparation, indications, contraindications, procedure, and clinical significance of Ultrasound, Doppler studies, Mammogram, Angiography	3	Experiential-Learning 8.9	PSY-MEC	Does	LS,TBL, ML

Practical Training Activity

Practical Training 8.1 : Interpretation of hematological investigations

Total duration of the activity is 2 hours

Demonstration by teacher: The teacher will demonstrate how to interpret the lab results, explaining their clinical significance. The teacher will also suggest additional tests, if necessary, to clarify the diagnosis. (30 minutes)

Group Work for Analysis: Students will be divided into groups, with each group assigned a minimum of 5 different lab reports containing abnormal findings. Groups will analyse and interpret these reports under the teacher's guidance.(1 hour 30 minutes)

At the end of each activity, each group should submit a report to the concerned faculty.

Practical Training 8.2 : Interpretation of biochemical investigations

Total duration of the activity is 2 hours

Demonstration by teacher: The teacher will demonstrate how to interpret the lab results, explaining their clinical significance. The teacher will also suggest additional tests, if necessary, to clarify the diagnosis. (30 minutes)

Group Work for Analysis: Students will be divided into groups, with each group assigned a minimum of 5 distinct lab report containing abnormal findings. Groups will analyse and interpret these reports under the teacher's guidance. (1 hour 30 minutes)

At the end of each activity, each group should submit a report to the concerned faculty.

Practical Training 8.3 : Interpretation of immunological investigations

Total duration of the activity is 2 hours

Demonstration by teacher: The teacher will demonstrate how to interpret the lab results, explaining their clinical significance. The teacher will also suggest additional tests, if necessary, to clarify the diagnosis. (30 minutes)

Group Work for Analysis: Students will be divided into groups, with each group assigned a minimum of 5 distinct lab reports containing abnormal findings. Groups will analyse and interpret these reports under the teacher's guidance. (1 hour 30 minutes)

At the end of each activity, each group should submit a report to the concerned faculty.

Practical Training 8.4 : Interpretation of Clinical laboratory investigations of infectious diseases

Total duration of the activity is 2 hours

Demonstration by teacher: The teacher will demonstrate how to interpret the lab results, explaining their clinical significance. The teacher will also suggest additional tests, if necessary, to clarify the diagnosis. (30 minutes)

Group Work for Analysis: Students will be divided into groups, with each group assigned a minimum of 5 distinct lab report containing abnormal findings. Groups will analyse and interpret these reports under the teacher's guidance. (1 hour 30 minutes)

At the end of each activity, each group should submit a report to the concerned faculty.

Practical Training 8.5 : Interpretation of Electrocardiogram and Echocardiogram

Total duration: 5 hours

Flipped classroom: Students will be required to pre-study the clinical interpretation of Electrocardiogram, Echocardiogram before the beginning of the activity.

Activity 1: ECG (3 hours)

Demonstration by teacher: The teacher will demonstrate basics of Electrocardiogram highlighting common pathological findings. (1 hour)

Group Work for Analysis: Students will be divided into groups, with each group assigned 5 distinct ecg report. Groups will analyse and interpret these reports. At the end of the activity students summarize key findings and submit as a report. (2 hours)

Activity 2: ECHO (2 hours)

Demonstration by teacher: The teacher will demonstrate basics of Echocardiogram highlighting common pathological findings. (1 hour) Group Work for Analysis: Students will be divided into groups, with each group assigned two distinct lab reports containing abnormal findings with case scenario. Groups will analyse and interpret these reports under the teacher's guidance. At the end of the activity students summarize key findings and submit to the teacher. (1 hour)
Practical Training 8.6 : Interpretation of Positron emission tomography (PET) and Single Photon Emission Computed Tomography (SPECT).
Total duration of the activity is 5 hours Flipped classroom: Students should prestudy the basics of PET and SPECT before commencement of the activity. Activity 1: PET (3 hours) Teacher will demonstrate how to interpret the PET highlighting common pathological findings. (1 hour) Students will be divided into groups. Each group should will be given a minimum of 5 images with clinical case scenario each accompanied by a clinical case scenario. Each group should interpret the images given. At the end of the activity, each group will summarize key findings and present to the teacher. (2 hours) Activity 1: SPECT (2 hours) Teacher will demonstrate how to interpret the SPECT highlighting common pathological findings. (1 hour) Students will be divided into groups. Each group should will be given a minimum of 2 images with clinical case scenario each accompanied by a clinical case scenario. Each group should interpret the images given. At the end of the activity, each group will summarize key findings and present to the teacher. (1 hour)
Practical Training 8.7 : Barium studies, Endoscopy and Colonoscopy
Total duration of the activity is 2 hours Students will be divided into groups, and each group will be assigned one topic. Each group is required to gather detailed information on their assigned topic. (1 hour 30 minutes) At the end of the activity, each group will present before the class. (30 minutes)
Experiential learning Activity
Experiential-Learning 8.1 : Interpretation of Clinical laboratory investigations of hematology
Total duration of the activity is 3 hours Case-Based Learning (2 Hours 30 minutes) – Each student should analyse a minimum of 5 lab reports of patients. Documentation (30 minutes) – Record interpretations and summarize key findings in a report
Experiential-Learning 8.2 : Interpretation of biochemical investigations

Total duration of the activity is 3 hours

Case-Based Learning (2 Hours 30 minutes) – Each student should analyse a minimum of 5 lab reports of patients.

Documentation (30 minutes) – Record interpretations and summarize key findings in a report.

Experiential-Learning 8.3 : Interpretation of immunological investigations

Total duration of the activity is 3 hours

Case-Based Learning (2 Hours 30 minutes) – Each student should analyse a minimum of 5 lab reports of patients.

Documentation (30 minutes) – Record interpretations and summarize key findings in a report

Experiential-Learning 8.4 : Interpretation of clinical laboratory investigations of infectious diseases

Total duration of the activity is 3 hours

Case-Based Learning (2 Hours 30 minutes) – Each student should analyse a minimum of 5 lab reports of patients.

Documentation (30 minutes) – Record interpretations and summarize key findings in a report

Experiential-Learning 8.5 : Electroencephalogram, Electromyogram & Nerve conduction studies

Total duration of the activity is 5 hours

Flipped classroom: Students will be required to pre-study the basics of EEG, EMG and Nerve conduction study report before the beginning of the activity.

Demonstration by teacher: The teacher will demonstrate how to interpret EEG, EMG and Nerve conduction study report and common abnormalities. (2 hours)

Group Work for Analysis: Students will be divided into groups, with each group assigned minimum two distinct lab reports containing abnormal findings with case scenario in each topic. Groups will analyse and interpret these reports. At the end of the activity students summarize key findings and submit as a report. (3 hours)

Experiential-Learning 8.6 : X-ray image interpretation

Total duration of the activity is 2 hours

As a flipped classroom approach, students must pre-study the basics of X-ray before the commencement of the activity.

The teacher will demonstrate how to interpret chest and joint X-rays, highlighting common pathological findings. (1 hour)

Following the demonstration, students will be divided into groups. Each group will receive a set of at least five X-ray images, each accompanied by a clinical case scenario.

The task will involve identifying normal or abnormal findings and correlating them with the clinical context. At the end of the session, each group will present their interpretations and clinical correlations to the respective faculty. (1 hour)

Experiential-Learning 8.7 : CT image interpretation	
Total duration of the activity is 2 hours. As a flipped classroom approach, students must pre-study the basics of CT before the commencement of the activity The teacher will demonstrate how to interpret CT images and highlighting common pathological findings. (1 hour) Following the demonstration, students will be divided into groups. Each group will receive a set of at least two CT images related to neurology and respiratory system, each accompanied by a clinical case scenario. The task will involve identifying normal or abnormal findings and correlating them with the clinical context. At the end of the session, each group will present their interpretations and clinical correlations to the respective faculty. (1 hour)	
Experiential-Learning 8.8 : MRI image interpretation	
Total duration of the activity is 2 hours. As a flipped classroom approach, students must pre-study the basics of MRI before the commencement of the activity The teacher will demonstrate how to interpret MRI images highlighting common pathological findings. (1 hour) Following the demonstration, students will be divided into groups. Each group will receive a set of at least two MRI images, each accompanied by a clinical case scenario. The task will involve identifying normal or abnormal findings and correlating them with the clinical context. At the end of the session, each group will present their interpretations and clinical correlations to the respective faculty. (1 hour)	
Experiential-Learning 8.9 : Ultrasound, Doppler studies, Mammogram and Angiography	
Total duration of the activity is 3 hours Students will be divided into groups, and each group will be assigned one topic. Each group is required to gather detailed information on their assigned topic. (2 hours 30 minutes) At the end of the activity, each group will present before the class. (30 minutes)	
Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks per credit. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C I. Lab report interpretation (image/report) – 10 questions (10 x 2 = 20 marks) II. Short answer questions - 2 questions on any investigation (2 x 5 = 10 marks)	4

III. Application Based Question - 1 question (1 x 20 = 20 marks)

Or

Any practical in converted form can be taken for assessment (25 marks)

and

Any of the experiential as portfolio/ 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	Scientific perspectives of Iymbootham	4
1.2	Scientific comparison of Saram	4
1.3	Exploring Suvaigal and Kutram	4
1.4	Scientific discussion on Dasa Naadigal	2
1.5	Group discussion on Dasavaayukkal	2
1.6	Brainstorming on Aadhaaram, Mandalam, Malam,Thodam, Edanai	2
1.7	Brainstorming on Gunam, Raagam, Vinai and Avatthaigal	2
2.1	Mukkutram and Mukkunam	5
2.2	Mukkutra parisothanai: Vali	4
2.3	Mukkutra parisothanai: Azhal	4
2.4	Mukkutra parisothanai: Iyam	4
2.5	Mukkutram and Diseases	3
3.1	Questionnaire on Udal thee	3
3.2	Questionnaire on Udal vanmai (Immunity)	3

3.3	Udal thathukkal parisothanai	4
3.4	Questionnaire development on Yaakai ilakkanam	4
3.5	Yaakkai comparison	4
3.6	14 Vegangal and physiological reflexes	2
4.1	Kirumigal in the light of microbiota	3
4.2	Envagai Thervu	5
4.3	Interpretation of Manikadai nool	2
4.4	Marana kurigunangal - Literature review	2
4.5	Group discussion on Thodakurikunangal	2
4.6	Avathaigal and Marana kurigunangal	6
5.1	Yaakkai-Based Diet: A Scientific Approach	7
5.2	Nutritional and calorie requirements	5
5.3	Seasonal Siddha dietetics	4
5.4	Naal Ozhukkam and Pini Anuga Vithi	4
6.1	Group Discussion/Debate on Aga marunthugal	1
6.2	Discussion/Debate on Aga marunthugal	1
6.3	Kattu (Bandage)	2
6.4	Ottradam	4
6.5	Podi thimirthal	3
6.6	Thokkanam (Massage Therapy)	4

6.7	Attai vidal (Leech therapy)	3
6.8	Peechu (Enema)	2
7.1	General Examination	2
7.2	Examination of the Respiratory System	2
7.3	Clinical Examination of the Gastrointestinal System	2
7.4	Clinical Examination of the Cardiovascular System	2
7.5	Clinical Examination of the Nervous System	3
7.6	Clinical Examination of the Locomotor System	3
7.7	Clinical Examination of the Endocrine System	2
7.8	Comparative Study of Traditional Healing Systems	4
8.1	Interpretation of hematological investigations	2
8.2	Interpretation of biochemical investigations	2
8.3	Interpretation of immunological investigations	2
8.4	Interpretation of Clinical laboratory investigations of infectious diseases	2
8.5	Interpretation of Electrocardiogram and Echocardiogram	5
8.6	Interpretation of Positron emission tomography (PET) and Single Photon Emission Computed Tomography (SPECT).	5
8.7	Barium studies, Endoscopy and Colonoscopy	2

Table 5 : Experiential learning Activity

(*Refer table 3 of similar activity number)		
Experiential learning No*	Experiential name	Hours
1.1	Case series on Pranayamam	5
1.2	Veeriyam (Potency)	3
1.3	Scientific analysis of Suvaigal	3
1.4	96 Thathuvam - Muthal Thathuvam - Literature review	4
1.5	96 Thathuvam - Irandam Thathuvam - Literature review	4
1.6	96 Thathuvam - Moondram Thathuvam - Literature review	3
1.7	Insights on 96 Thathuvam	4
2.1	Qualities of Vali, Azhal and Iyam	3
2.2	Mukkutram and bodily excretions	3
2.3	Mukkuttra Parisothanai: Vali	5
2.4	Mukkuttra Parisothanai: Azhal	5
2.5	Mukkuttra parisothanai: Iyam	5
2.6	Mukkuttra parisothanai: Vali, Azhal & Iyam	5
3.1	Udal thee (Digestive fire) parisothanai	3
3.2	Udal vanmai (Immunity) parisothanai	3
3.3	Udal Thathukkal evaluation	3
3.4	Presentation on Udal Thathukkal	3

3.5	Yaakkai parisothanai	6
3.6	Observation of 14 Vegangal in patients	4
3.7	Scientific perspectives of 14 natural urges	4
4.1	Neikkuri analysis	5
4.2	Naadi Workshop	8
4.3	Manikadai Nool assessment	4
4.4	Presentation of the Thodakurikungal	3
4.5	Field visit to palliative care centres	6
5.1	Field Visit to a Food/Diet-Based Research Institution or Industry	8
5.2	Pathiyam / Apathiyam recommendation for patients	4
5.3	Scientific analysis of diet regulations for metals, minerals and Siddha formulations	4
5.4	Public awareness programme on Kaala ozhukkam	5
5.5	Public awareness programme on Naal ozhukkam and Pini anuga vithi	5
6.1	Analysis of Siddha Medicines	3
6.2	Mapping Siddha Medicines to Modern Mechanisms	3
6.3	Clinical application of Kattu (Bandage)	2
6.4	Ottradam (Foementation)	4
6.5	Clinical application Podi thimirthal (Powder anointing / Powder smearing)	3
6.6	Clinical application of Vethu (Inhalation or exposure to steam) / Pugai (Fumigation)	3

6.7	Clinical application of Thokkanam (Massage therapy)	3
6.8	Clinical application of Attai vidal (Leech therapy)	3
6.9	Clinical application of Peechu (Enema)	2
7.1	General examination of the patient (3 hours)	2
7.2	Examination of the Respiratory system	3
7.3	Examination of the Gastrointestinal System	3
7.4	Examination of the Cardiovascular system	3
7.5	Examination of the Nervous System	4
7.6	Examination of the Locomotor system	3
7.7	Examination of the Endocrine System	3
7.8	Exploring Traditional and Holistic Healing Systems: A Field Visit	5
8.1	Interpretation of Clinical laboratory investigations of hematology	3
8.2	Interpretation of biochemical investigations	3
8.3	Interpretation of immunological investigations	3
8.4	Interpretation of clinical laboratory investigations of infectious diseases	3
8.5	Electroencephalogram, Electromyogram & Nerve conduction studies	5
8.6	X-ray image interpretation	2
8.7	CT image interpretation	2
8.8	MRI image interpretation	2
8.9	Ultrasound, Doppler studies, Mammogram and Angiography	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-AB-M	1	100	200	300

6 B : Scheme of Assessment (Formative and Summative Assessment)**Credit frame work**

SIDPG-AB-M consists of 8 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 Hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

Formative Assessment :Module wise Assessment:will be done at the end of each module. Evaluation includes learners active participation to get Credits and Marks. Each Module may contain one or more credits.

Summative Assessment:Summative Assessment (University examination) will be carried out at the end of Semester II.

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

Module Number & Name (a)	Credits (b)	Actual No. of Notional Learning Hours (c)	Attended Number of notional Learning hours (d)	Maximum Marks of assessment of modules (e)	Obtained Marks per module (f)	MGP =d* f/c*e*100
M1. Basic principles	2	60		50		
M2. Three Humoral Theory: Vali, Azhal and Iyam	2	60		50		
M3. Siddha Physiology: Uyiranal, Udal Thee, Udal Vanmai, Udal Thathukkal, 14 Vegangal & Yaakkai Ilakkanam	2	60		50		
M4. Siddha Diagnostic and Prognostic Methods	2	60		50		
M5. Siddha Dietetics, Lifestyle and Medical Ethics	2	60		50		
M6. Common Siddha Formulations and External Therapies	2	60		50		
M7. Clinical Examinations, Other Traditional Systems and Health Programmes	2	60		50		

M8. Modern Diagnostic Methods	2	60		50		
$\text{MGP} = \frac{(\text{Number of Notional learning hours attended in a module}) \times (\text{Marks obtained in the modular assessment})}{(\text{Total number of Notional learning hours in the module}) \times (\text{Maximum marks of the module})} \times 100$						

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

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

SGPA = Average of MGP of all modules of all papers = add all MGPs in the semester/ no. of modules in the semester
Evaluation Methods for Modular Assessment

A S.No	B Module number and Name	C MGP
1	M1.Basic principles	C1
2	M2.Three Humoral Theory: Vali, Azhal and Iyam	C2
3	M3.Siddha Physiology: Uyiranal, Udal Thee, Udal Vanmai, Udal Thathukkal, 14 Vegangal & Yaakkai Ilakkanam	C3
4	M4.Siddha Diagnostic and Prognostic Methods	C4
5	M5.Siddha Dietetics, Lifestyle and Medical Ethics	C5
6	M6.Common Siddha Formulations and External Therapies	C6
7	M7.Clinical Examinations, Other Traditional Systems and Health Programmes	C7
8	M8.Modern Diagnostic Methods	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-AB-M Sem II

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

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

6 F : Distribution for summative assessment (University examination)

S.No	List of Module/Unit	ABQ	SAQ	LAQ
(M-1)Basic principles (Marks: Range 5-15)				
1	(U-1) Iymboothangal (Five elements), Karu urpatthi (Embryogenesis) & Saram (Respiration)	No	Yes	No
2	(U-2) Suvaigal (Taste) and Veeriyam (potency) and their therapeutic application	No	Yes	Yes
3	(U-3) 96 Thathuvam - Muthal Thathuvam	No	Yes	Yes
4	(U-4) 96 Thathuvam - Irandam Thathuvam	No	Yes	Yes
5	(U-5) 96 Thathuvam - Moondram Thathuvam	No	Yes	Yes
(M-2)Three Humoral Theory: Vali, Azhal and Iyam (Marks: Range 5-20)				
1	(U-1) Exploring the characteristics of three humours	No	Yes	Yes
2	(U-2) Vali / Vatham	Yes	Yes	Yes
3	(U-3) Azhal / Pitham	Yes	Yes	Yes
4	(U-4) Iyam / Kabam	Yes	Yes	Yes
5	(U-5) Vali / Vatham, Azhal / Pitham and Iyam / Kabam	No	Yes	No
(M-3)Siddha Physiology: Uyiranal, Udal Thee, Udal Vanmai, Udal Thathukkal, 14 Vegangal & Yaakkai Ilakkanam (Marks: Range 5-20)				
1	(U-1) Uyiranal, Udal thee and Udal Vanmai	No	Yes	No
2	(U-2) Udal Thathukkal (Seven Physical constituents)	Yes	Yes	Yes
3	(U-3) Yaakkai ilakkanam (Body constitution)	Yes	Yes	Yes
4	(U-4) 14 vegangal (Fourteen Natural Urges) and Physiological reflexes	Yes	Yes	Yes
(M-4)Siddha Diagnostic and Prognostic Methods (Marks: Range 5-20)				
1	(U-1) Siddha etiology and pathology of diseases	No	Yes	No
2	(U-2) Envagai thervu	Yes	Yes	Yes
3	(U-3) Manikadai Nool	No	Yes	No
4	(U-4) Prognosis and Fatal Signs in Siddha Medicine	No	Yes	Yes
(M-5)Siddha Dietetics, Lifestyle and Medical Ethics (Marks: Range 5-20)				
1	(U-1) Siddha diet for Mukktram	Yes	Yes	No
2	(U-2) Pathiyam muraigal	Yes	Yes	No
3	(U-3) Kaala ozhukkam	No	Yes	Yes
4	(U-4) Naal ozhukkam and Pini anuga vidhi	No	Yes	Yes

5	(U-5) Medical ethics, common laws and regulations applicable to clinical practice	No	Yes	Yes
(M-6)Common Siddha Formulations and External Therapies (Marks: Range 5-20)				
1	(U-1) Aga Marunthugal Part I	Yes	Yes	Yes
2	(U-2) Aga Marunthugal Part II	Yes	Yes	Yes
3	(U-3) Pura marunthugal and pura maruthuva muraigal Part I	Yes	Yes	Yes
4	(U-4) Pura marunthugal and pura maruthuva muraigal Part II	Yes	Yes	Yes
(M-7)Clinical Examinations, Other Traditional Systems and Health Programmes (Marks: Range 5-20)				
1	(U-1) Modern clinical examinations	Yes	Yes	Yes
2	(U-2) Introduction of the basic principles of Homeopathy, Unani, Ayurveda, Sowa Rigpa, Yoga and Naturopathy and their relevance in light of the basic principles of Siddha medicine.	No	Yes	Yes
3	(U-3) Health Programmes / Govt initiatives with relevant to Ayush	No	Yes	Yes
(M-8)Modern Diagnostic Methods (Marks: Range 5-20)				
1	(U-1) Haematological investigations	Yes	Yes	Yes
2	(U-2) Biochemical investigations	Yes	Yes	Yes
3	(U-3) Immunological investigations	Yes	Yes	Yes
4	(U-4) Microbiology - Detection of infectious agents	Yes	Yes	Yes
5	(U-5) Electrophysiological and Imaging Techniques in Cardiovascular and Neuromuscular Diagnostics	No	Yes	No
6	(U-6) Imaging modalities in Medical Diagnostics	Yes	Yes	Yes
7	(U-7) Specialized Diagnostic Procedures	No	Yes	Yes

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

Instructions for the paper setting.

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

Blueprint		
Question No	Type of Question	Question Paper Format
Q1	Application based Questions 1 Question 20 marks All compulsory	M2.U2 Or M2.U3 Or M2.U4 Or M3.U2 Or M3.U3 Or M3.U4 Or M4.U2 Or M5.U1 Or M5.U2 Or M6.U1 Or M6.U2 Or M6.U3 Or M6.U4 Or M7.U1 Or M8.U1 Or M8.U2 Or M8.U3 Or M8.U4 Or M8.U6
Q2	Short answer Questions Eight Questions 5 Marks Each All compulsory	1. M1.U2 Or . M4.U3 Or . M5.U4 Or . M6.U2 Or . M8.U5 2. M3.U1 Or . M5.U2 Or . M7.U1 Or . M8.U3 Or . M8.U7 3. M1.U1 Or . M3.U4 Or . M5.U3 Or . M6.U4 4. M2.U3 Or . M5.U1 Or . M8.U1 Or . M4.U4 5. M1.U5 Or . M2.U1 Or . M4.U2 Or . M7.U3 6. M1.U3 Or . M3.U2 Or . M6.U3 Or . M8.U4 7. M1.U4 Or . M2.U2 Or . M7.U2 Or . M8.U6 8. M2.U4 Or . M3.U3 Or . M5.U5 Or . M6.U1 Or . M8.U2
Q3	Analytical Based Structured Long answer Questions Four Questions 10 marks each All compulsory	1. M1.U2 Or . M3.U3 Or . M4.U2 Or . M5.U3 Or . M6.U3 Or . M8.U4 Or . M8.U6 2. M2.U2 Or . M3.U2 Or . M4.U4 Or . M7.U3 Or . M8.U1 Or . M6.U1 Or . M5.U5 3. M1.U4 Or . M2.U3 Or . M5.U4 Or . M6.U4 Or . M7.U1 Or . M8.U2 Or . M1.U7 4. M1.U3 Or . M1.U5 Or . M2.U4 Or . M3.U4 Or . M6.U2 Or . M7.U2 Or . M8.U3

6 H : Distribution of Practical Exam (University Examination)

S.No	Heads	Marks
1	Distribution of Marks for Long Case History taking (10 marks): Introduction, Complaints and Duration, History of present illness, Past history, Personal history, Family history, Menstrual history, Occupational history, vaccination history, any other relevant history) Clinical examination - Siddha (15 marks): Yaakkai ilakkanam, Gunam, Thinai, Kaalam, Impori, Impulan, Udal vanmai, Udal thathukkal, Kosangal, Uyir thathukkal, Udal thee, Dasa naadigal, Envagai thervu, Manikadai Nool assessment) Clinical examination - Modern (15 marks): General examination, Vital signs, Systemic examination- Nervous system, Cardiovascular system, Respiratory system, Abdomen, Uro-genital, Gynaecological examination and examination of joints Relevant Laboratory Investigations (10 marks) Case summary, Differential Diagnosis and Diagnosis including Mukkutra Verupadu & Kaalkalin (Vayukkalin) paathippu (10 marks) Management (10 marks): Line of Treatment, medicines and medical advice. Overall Performance: (10 marks): • Clarity: Make sure the examination process is clear and systematic. • Empathy: Show understanding and compassion for the patient's situation. • Confidence: Display confidence while explaining your actions, without being overly presumptive. • Professionalism: Maintain a professional attitude, including respect for the patient's privacy and dignity. • Organization: Maintain a clear and logical flow throughout the examination. • Time Management: Complete the examination in a timely manner • Comprehensiveness: Ensure no important aspects of the examination are overlooked.	80
2	Short Case (30 marks) History Taking (10 marks): Introduction, Complaints and Duration, History of present illness, Past history, Personal history, Family history, Menstrual history, Occupational history, vaccination history, any other relevant history Relevant clinical examination (5 marks) Relevant Lab Investigation (5 marks)	60

	Medicines and medical advice (10 marks) Spotters (10 x 3 = 30 marks) • Clinical Sign (Real case or image or video clips will be given) • Case scenario • Instruments / devices (such as Glucometer, Peak Flow Meter, Spirometer, Pulse Oximeter, Hemoglobinometer and any other instrument / device decided by the faculty/examiner) • Lab report interpretation • Neikkuri image In the examination, students will be required to write a brief description of the given spotter. A total of 10 spotter questions will be asked, each carrying 3 marks. The questions will be selected from mentioned topics, ensuring that at least one question is asked from each topic.	
3	Viva (2 examiners: 20 marks/each examiner)	40
4	Log book (Activity Record)	10
5	Practical/Clinical Record 10 Case Sheets	10
Total Marks		200

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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		