

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

தொட்டனைத் தூறும் மணற்கேணி மாந்தர்க்குக் கற்றனைத் தூறும் அறிவு

**Semester II
Applied Basics of Varma Maruthuvam
(Varma Medicine)
(SUBJECT CODE : SIDPG-AB-VM)**

(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

"MD Varma Maruthuvam: Unveiling the Science of Traditional Tamil Medicine"

Varma Maruthuvam, an ancient Tamil tradition, has been a cornerstone of healthcare in southern India for centuries. This postgraduate program, MD Varma Maruthuvam, embodies the synergy of traditional wisdom and modern medical sciences. Our mission is to cultivate expertise in Varma therapy, integrating the principles of Siddha medicine with contemporary healthcare needs. This comprehensive program is designed to foster clinical excellence, research acumen, and academic rigor. Through a rich curriculum, hands-on training, and interdisciplinary collaborations, we aim to produce specialists who can harmonize traditional and modern medical approaches.

Varma Maruthuvam, a branch of Siddha medicine, is rooted in the concept of vital energy flowing throughout the body. Any disruption in this energy flow can lead to illness, which is treated through therapeutic manipulation of varmam points, complemented by internal and external medications, to restore equilibrium. Varmam points are anatomical locations where life energy converges, serving as nodal points for channeling vital energy to various body parts, maintaining homeostasis. These points are situated at intersections of nerves, muscles, bones, and joints. According to varma manuscripts, 108 primary Varmam points exist, categorized into:

- 12 Paduvarmam points, concentrating high levels of pranic energy
- 96 Thoduvarmam points, containing lower levels of pranic energy

Varma maruthuvam involves the manipulation of Varmam points to release obstructed pranic energy, caused by trauma or other factors. Specific pressure is applied to these points to restore energy flow. The primary objective of Varma Maruthuvam is to reestablish the body's energy flow. This is achieved through:

- Manipulation of Varmam points
- Internal medications
- External medications

Revamped syllabus aims to nurture each student into a multifaceted expert, a successful Varmam specialist, academician, researcher, and clinician. Empowering the next generation of Varmam practitioners to integrate traditional wisdom with modern medical knowledge, fostering a harmonious blend of ancient and contemporary approaches to healthcare system.

This programme provides evidence-based Varmam therapy, Integrate Siddha principles with modern medical practices, conduct research and contribute to the scientific community, Promote healthcare accessibility and affordability and aims to develop expertise in Varma therapy and Siddha medicine, foster research and innovation in traditional medicine, enhance clinical skills and interdisciplinary task, Promote leadership and entrepreneurship in healthcare.

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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 Varma Maruthuvam (SIDPG-AB-VM)

Summary & Credit Framework

Semester II

Module Number & Name	Credits	Notional Learning Hours	Maximum Marks of assessment of modules (Formative Assessment)
M1. Varmam Therapy	2	60	50
M2. Sara soothiram and amirtha nilai thathuvam	2	60	50
M3. Classification of varmam points	2	60	50
M4. Varmam naadi (pathway of vaasi) & vaayu thalangal	2	60	50
M5. Varmam thoondum muraigal (manipulation methods)	1	30	25
M6. Varmam kalari & ethnovarmam practices	2	60	50
M7. Basics of applied neurology & neuro diagnostic techniques	2	60	50
M8. Diseases of the Nervous system	2	60	50
M9. Clinical manifestation of neurological diseases	1	30	25
	16	480	400

Credit frame work

SIDPG-AB-VM consists of 9 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-VM	Applied Basics of Varma Maruthuvam (Varma Medicine)

Table 1 : Course learning outcomes and mapped Program learning outcomes

CO No	A1 Course learning Outcomes (CO) SIDPG-AB-VM At the end of the course SIDPG-AB-VM, the students should be able to-	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Explore the fundamental principles of udal koorugal, udal thathuvam, bio mechanism of vaasi (life energy) and naadis (channels) in varmam	PO1
CO2	Document and validate the traditional ethnovarmam practices & medicines for therapeutic application & managing various diseases	PO2,PO6
CO3	Acquire comprehensive and wholesome knowledge of varmam points, their indications and contraindications & non-invasive or non instrumental methods of varmakalari and their importance in health promotion and therapeutic application	PO1,PO2,PO3,PO6
CO4	Analyze the various siddha varmam literatures and develop expertise in management of acute and chronic diseases, sports injuries, emergency situations and varmam injuries including fractures, and formulate standard operating procedures for varmam management	PO2,PO4,PO6,PO8
CO5	Develop competency in creating evidence-based approach towards varmam concepts and become skillful at conducting experimental studies in varmam therapeutic techniques and varmam medicine	PO1,PO7
CO6	Correlate varmam principles with modern medical concepts and recent scientific advancements and apply this integrated expertise to treat various disorders effectively and innovatively	PO2,PO4,PO6
CO7	Develop holistic based varmam treatment protocol for Lifestyle disorders, Geriatrics, Metabolic, Communicable & Non communicable diseases, hereditary & Congenital disorders	PO3,PO5
CO8	Emerge into a successful varmam clinical specialist, academician, researcher, entrepreneur, and practitioner trained in ethical principles of varmam	PO6,PO7,PO8

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

2A Module Number	2B Module & units	2C Number of Credits	Notional Learning Hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
1	M-1 Varmam Therapy This module contains the definition, terminology, role, uniqueness, history and evolution of <i>varmam</i>, <i>karu urpathi</i>, <i>96 thathuvangal</i>, <i>karu urpathi</i>, <i>14 vengangal</i>, basic <i>thathuvam</i> (<i>Iym boodham thathuvam</i>, <i>moovudal thathuvam</i>, <i>mukkalai thathuvam</i> and <i>mummandala thathuvam</i>) and current research in <i>varmam</i>. • M1U1 Fundamentals of varmam 1.1.1. Traverse the concept of <i>varmam</i>: definition, principles, ethics, history, and development. 1.1.2. Manipulation methods of <i>varmam</i> therapy • M1U2 Karu urpathi, 96 thathuvam and 14 vengangal 1.2.1. <i>Karu urapathi</i>, principles of <i>96 thathuvangal</i> and <i>14 vengangal</i>, and their role in <i>varmam</i>. 1.2.2. The human body's relationship with the <i>14 vengangal</i>. 1.2.3. Fundamentals of <i>karu urpathi</i>, <i>14 vengangal</i>, and <i>96 thathuvangal</i> concerning modern science. • M1U3 Iym boodha thathuvam and Moovudal thathuvam in varmam	2	10	20	30	60

	1.3.1. <i>Iyam bootham thathuvam</i> (five elemental theory) and <i>moovudal thathuvam</i> (three bodies concept), and their Interrelationship with the human body. 1.3.2. The Mechanisms of <i>iyam bootham thathuvam</i> (five elemental theory) - <i>moovudal Thathuvam</i> (three bodies concept), and 96 <i>thathuvam</i> (96 principles) • M1U4 Mukkalai thathuvam and Mummandala thathuvam in varmam 1.4.1. <i>Mukkalai & mummandala thathuvam</i> (principles of three dispersements & three zones) 1.4.2. <i>Mukkalai</i> with <i>thuvathasa naadi</i> ,<i>mummandalam</i> and <i>moovudal</i> (principles of three dispersements with twelve channels & three bodies) • M1U5 Varmam research studies and document the ancient texts 1.5.1. Review of various <i>varmam</i> research 1.5.2. Collection of data from various sources regarding <i>varmam</i> and decoding of manuscripts 1.5.3. Compilation and examination of <i>varmam</i> data documentation and statistical analysis.					
2	M-2 Sara soothiram and amirtha nilai thathuvam This module describes the formation and distribution of <i>vaasi</i>, <i>aathara chakram</i>, and explores the importance of <i>Naadi</i>, including <i>guru naadi saathiya</i> and <i>asaathiya naadi varmam</i>, as well as the significance of <i>amirthanilai</i>, <i>vishanilai</i>, and <i>nananilai thalangal</i>. Additionally, it discusses the role of <i>vaasi</i> in the 12 months and 27 <i>nakshatram</i>, and examines the analysis and application of <i>sara sootthiram</i>, <i>amirtha</i>	2	10	20	30	60

nilai thathuvam, and the fundamentals of *panchapatchi in varmam*.

- **M2U1 Vaasi and its formation**

- 2.1.1. Formation of *vaasi* and the *aathara Chakram*
- 2.1.2. *Vaasi* in *aadhara chakaram* and its activation
- 2.1.3. The Interrelationship between *Vaasi*, *Aathara Chakram*, and *Varmam*.

- **M2U2 Circulation of amirtha, visha, Nana kalai based on thithi sites**

- 2.2.1. *Amirthanilai*, *vishanilai*, *nananilai thalangal* & its importance
- 2.2.2. *Amirthanilai* and documentation of flow of bioenergy in *amirthanilai* sites

- **M2U3 Role of vaasi kalai in 12 months & 27 stars**

- 2.3.1. The role of *vaasi* in 12 months and 27 (*Nakshatram*) stars
- 2.3.2. The relationship between *vaasi* in 12 months, 27 stars
- 2.3.3. The mechanism of action of *vaasi* with the 12 *rasis*, 27 (*Nakshatram*)

- **M2U4 Role of Naadi Diagnosis in Varmam maruthuvam**

- 2.4.1. The importance of various types of *naadi*, including *guru naadi*, *saathiya asaathiya naadi* in *varmam*, and general features of *naadi*
- 2.4.2. The *Naadi* (pulse) variation in *varmam*
- 2.4.3. The variation of *Naadi* (pulse) in different clinical conditions

	• M2U5 Panchapatchi in varmam 2.5.1. The importance of <i>panchapatchi</i> in <i>varmam</i> 2.5.2. Demonstration and analysis of <i>panchapatchi</i> in <i>varmam</i> 2.5.3. Application and Documentation of <i>panchapatchi</i> in <i>varmam</i>					
3	M-3 Classification of varmam points This module describes the classifications of <i>varmam</i> points based on medical, traumatic, and regional categories, including <i>naadi</i> and <i>aadharam</i>, <i>mukkuttram</i>, <i>panchabootham</i> and <i>alavai</i>, prognosis, structure, qualitative, single-multiple and gender classifications, as well as anaesthetic <i>varmam</i> points, their structure, gender, and <i>ennikkai</i> (numerical) categories, and manipulation techniques • M3U1 Medical classification, Traumatic classification and Regional classification 3.1.1. The medical, traumatic and regional classification of <i>varmam</i> 3.1.2. Classification of <i>varmam</i> based on manipulation techniques. • M3U2 Classification based on Naadi and Aadharam 3.2.1. Classification of <i>varmam</i> based on <i>naadi</i> and <i>aadharam</i> 3.2.2. The relationship between <i>varmam</i> with <i>naadi</i> and <i>aadharam</i> 3.2.3. Documentation of the flow of <i>naadi</i> concerning <i>varmam</i> and <i>aadharam</i> • M3U3 Classification based on Mukkuttram, Panchabootham and Alavai	2	10	20	30	60

	3.3.1. Classification of <i>varmam</i> based on <i>mukkuttram</i>, <i>panchabootham</i> and <i>alavai</i> 3.3.2. Manipulation of <i>varmam</i> based on <i>mukkuttram</i>, <i>panchabootham</i> and <i>alavai</i> • M3U4 Prognostic classification, Qualitative classification, Structural classification, Single, multiple classification and Gender classification, Anaesthetic varmam points 3.4.1. Classification of <i>varmam</i> based on prognosis, structure, qualitative, single-multiple and gender and anaesthetic varmam points 3.4.2. Manipulation of <i>varmam</i> points based on prognosis, structure, qualitative, single-multiple and gender and anaesthetic varmam points • M3U5 Classification based on structure, gender ,ottrai-erattai(numerical) 3.5.1. Classification of <i>varmam</i> based on structure, gender and ennikkai (numerical) Categories. 3.5.2. Manipulation of <i>varmam</i> points based on structure, gender and ennikkai (numerical)					
4	M-4 Varmam naadi (pathway of vaasi) & vaayu thalangal This module describes the 12 <i>naadi</i>, including <i>vaayu</i>, its pathway, demonstration, stimulation, significance in <i>varmam</i>, and represents the demonstration of varmam thoondal, thadaval muraigal for each of the 12 naadi • M4U1 Idakalai and pingalai naadi and its pathway	2	10	20	30	60

4.1.1. The importance of *Idakalai* and *pingalai naadi*, their pathway, and secondary branches

4.1.2. The *varma thoondal* and *thadaval* along the pathway of *idakalai* and *pingalai*

4.1.3. Application and demonstration proficiency in performing *varma thoondal* and *thadaval* for *idakalai* and *pingalai naadi*

• **M4U2 Suzhumunai, singuvai naadi and its pathway**

4.2.1. The *suzhumunai* and *singuvai naadi* branches and their pathway

4.2.2. *Varma thadaval* along the path of *suzhumunai* and *singuvai*

4.2.3. *arma thadaval* for *suzhumunai* and *singuvai*

• **M4U3 Purudan, kandhari and athi naadi and its pathway**

4.3.1. The *purudan*, *kandhari* and *athi naadi*, their pathway, primary and secondary branches

4.3.2. *Varma thadaval* along the pathway of *purudan*, *kandhari* and *athi naadi*

4.3.3. *Varma thadaval* for *purudan*, *kandhari* and *athi naadi*

• **M4U4 Alampurudan, sangini and kugu naadi and its pathway**

4.4.1. The *alampurudan*, *sangini* and *kugu naadi*, their pathway, primary and secondary branches

4.4.2. *Varma thadaval* along the pathway of *alampurudan*, *sangini* and *kugu*

4.4.3. *Varma thadaval* for *alampurudan*, *sangini* and *kugu naadi*

• **M4U5 Visothirai and paisini naadi and its pathway**

	4.5.1. Explanation of the importance of <i>visothirai and paisini naadi</i>, its main and branch pathways 4.5.2. <i>Varma thadaval</i> along the pathway of <i>visothirai</i> and <i>paisini</i> 4.5.3. <i>Varma thadaval</i> for <i>visothirai</i> and <i>paisini naadi</i>					
5	M-5 Varmam thoondum muraigal (manipulation methods) This module describes the varmam maathirai, irai and the importance and demonstrates the application techniques of <i>varmam thoondum muraigal</i>, <i>varma muthirai</i>, and <i>varmam thiravukol</i> methods in various regions of the body • M5U1 Varma maathirai and irai 5.1.1. <i>Varma maathirai</i> and <i>irai</i> 5.1.2. The techniques of <i>varma maathirai</i> and <i>irai</i> 5.1.3. Documentation of <i>varma maathirai</i> from various <i>varmam</i> traditional practitioners • M5U2 Types and therapeutic efficacy of Varma muthirai 5.2.1. <i>Varma muthirai</i> and its importance 5.2.2. The types and therapeutic efficacy of <i>varma muthirai</i>, application of <i>varma muthirai</i> for various conditions 5.2.3. Application of <i>varma muthirai</i> in various therapeutic aspects • M5U3 Varmam muthirai used in head and neck, abdomen and thorax and limbs	1	5	10	15	30

	5.3.1. The <i>varma muthirai</i> used in the head, neck, abdomen, thorax and limbs. 5.3.2. The techniques of <i>varma muthirai</i> 5.3.3. Application of <i>varma muthirai</i> used in head , neck, abdomen, thorax and limbs • M5U4 Varma thiravukol 5.4.1. Explanation of <i>varma thiravukol</i> 5.4.2. Demonstration of <i>varma thiravukol</i> 5.4.3. Documentation of <i>varma thiravukol</i>					
6	M-6 Varmam kalari & ethnovarmam practices This module describes the techniques of <i>silambattam</i>, application of <i>varmam kalari</i>, ethno <i>varmam</i> practices for therapeutic aspects & traditional bone setting techniques • M6U1 Kalari – Definition, Types, therapeutic importance and its role in day to day life 6.1.1. <i>Kalari</i> with its types, importance and usage of <i>kalari</i> in day-to-day life 6.1.2. The various techniques of <i>kalari</i> 6.1.3. <i>Kalari</i> demonstration for simple conditions without weapons. • M6U2 Silambam in varmam kalari – Role and importance 6.2.1. <i>Silambam</i> with its types and importance 6.2.2. The techniques of <i>silambam</i> 6.2.3. Demonstration of <i>silambam</i> in various health conditions	2	10	20	30	60

	• M6U3 Ethno varmam practices for various diseases 6.3.1. The basic <i>varma</i> points followed in folklore for various diseases 6.3.2. Observation on the manipulation methods followed by folklore practitioners 6.3.3. Documentation of traditional <i>varmam</i> manipulation followed in traditional <i>varma</i> hospitals and in <i>varma</i> OPD/IPD • M6U4 varmam practices for traditional bone setting 6.4.1. Ethno-<i>varmam</i> practices, including bone setting practices. 6.4.2. Observation of ethno-<i>varmam</i> practices by various <i>varmam</i> practitioners 6.4.3. Documentation of Ethno <i>varmam</i> practices and traditional bone setting techniques • M6U5 Mani, Manthiram 6.5.1. The basics of <i>mani, manthiram</i> 6.5.2. Observation on <i>mani, manthiram</i>, followed by folklore practitioners 6.5.3. Documentation of <i>mani, manthiram</i>					
7	M-7 Basics of applied neurology & neuro diagnostic techniques This module describes the neurophysiology of the sensory nervous system, the motor	2	10	20	30	60

nervous system, reflexes and cranial nerves the applied basics of neurology & neurodiagnostic techniques

• **M7U1 Overview of functional neuroanatomy and neurophysiology**

7.1.1. The Central, peripheral, and autonomic nervous system, Physiology of nerve conduction, Motor & sensory tracts, sensory receptors

7.1.2. Dissection of Brain and Spinal cord, explain using specimen, 3D models

7.1.3. Virtual dissection of brain and spinal cord

• **M7U2 Examination of sensory nervous system, motor nervous system, reflexes and cranial nerves**

7.2.1. The Sensory nervous system, the motor nervous system, and cranial nerves

7.2.2. Examination of the sensory nervous system, Motor nervous system, and cranial nerves.

7.2.3. Demonstrate proficiency in examining the sensory nervous system, the motor nervous system, and the cranial nerves.

• **M7U3 Basics of neuro imaging**

7.3.1. The basics of neuroimaging techniques

7.3.2. Clinical teaching with case discussions in OPD/IPD

7.3.3. Demonstrate proficiency in evaluating the basics of neuroimaging

• **M7U4 Importance of CT, MRI and other neuro imaging technique in neurologic diseases**

	7.4.1. The basics of CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) in neurologic diseases 7.4.2. Clinical teaching in daily case discussions in OPD/IPD, teaching programmes in other hospitals with CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) imaging technique 7.4.3. Demonstrate proficiency in evaluating CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) imaging technique • M7U5 Electro diagnostic Studies of Neurologic Disorders: EEG and EMG 7.5.1. The basics in evaluating EEG ,EMG and NCS 7.5.2. Clinical teaching in daily case discussions in OPD/IPD, and teaching programmes in other hospitals with diagnostic techniques like EEG and EMG. 7.5.3. Demonstrate proficiency in evaluating EEG and EMG					
8	M-8 Diseases of the Nervous system This module explains the various neurological diseases like seizure, epilepsy, cerebrovascular diseases, Alzheimer's disease, Parkinson's disease, motor neuron disease, trigeminal neuralgia, bell's palsy, multiple sclerosis, Guillain-Barré syndrome, muscular dystrophy, myositis, peripheral neuropathy, and chronic fatigue syndrome • M8U1 Seizures, epilepsy and Cerebro vascular diseases 8.1.1. The pathophysiology, symptoms and diagnosis of seizures, epilepsy and cerebrovascular diseases 8.1.2. Clinical Examination of seizures, epilepsy and cerebrovascular diseases 8.1.3. Demonstrate proficiency in evaluating seizures, epilepsy and	2	10	20	30	60

cerebrovascular diseases

• **M8U2 Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders**

8.2.1. The pathophysiology, symptoms, diagnosis of Alzheimer's disease, Parkinson's disease, trigeminal neuralgia, Bell's palsy and other cranial nerve disorders

8.2.2. Clinical Examination of Alzheimer's disease, Parkinson's disease, trigeminal neuralgia, Bell's palsy and other cranial nerve disorders

8.2.3. Demonstrate proficiency in evaluating Alzheimer's disease, Parkinson's disease, trigeminal neuralgia, Bell's palsy and other cranial nerve disorders

• **M8U3 Amyotrophic Lateral Sclerosis(AML) and other Motor Neuron Diseases(MND), Prion disease and focal cerebral lesions**

8.3.1. Elaboration on the pathophysiology, symptoms, and diagnosis of Amyotrophic Lateral Sclerosis (AML) and other Motor Neuron Diseases(MND), prion disease and focal cerebral lesions

8.3.2. Clinical Examination of Amyotrophic Lateral Sclerosis (AML) and other Motor Neuron Diseases(MND), prion disease and focal cerebral lesions

8.3.3. Demonstrate proficiency in evaluating Amyotrophic Lateral Sclerosis (AML) and other Motor Neuron Diseases(MND), prion disease and focal cerebral lesions

• **M8U4 Myasthenia gravis, Muscular dystrophy and Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness in war veterans**

	8.4.1. Elaboration on the pathophysiology, symptoms, and diagnosis of Myasthenia gravis, muscular dystrophy and myositis, peripheral neuropathy, chronic fatigue syndrome and neuropsychiatric illness 8.4.2. Clinical Examination of Myasthenia gravis, muscular dystrophy and myositis, peripheral neuropathy, chronic fatigue syndrome and neuropsychiatric illness 8.4.3. Demonstrate proficiency in evaluating Myasthenia gravis, muscular dystrophy and myositis, peripheral neuropathy, chronic fatigue syndrome and neuropsychiatric illness • M8U5 Diseases of the spinal cord, Multiple sclerosis, Gullain barre syndrome and other demyelinating diseases 8.5.1. Elaboration on the pathophysiology, symptoms, and diagnosis of diseases of the Spinal cord, multiple sclerosis, Guillain-Barré syndrome and other Demyelinating diseases 8.5.2. Clinical Examination of diseases of the Spinal cord, multiple sclerosis, Guillain-Barré syndrome and other Demyelinating diseases 8.5.3. Demonstrate proficiency in evaluating diseases of the Spinal cord, multiple sclerosis, Guillain-Barré syndrome and other Demyelinating diseases					
9	M-9 Clinical manifestation of neurological diseases This module explains the clinical manifestation, examination, radiological investigation and management of neurological diseases associated with pain, syncope, dizziness, vertigo, fatigue, numbness, gait, balance disturbances, confusion, delirium, coma, aphasia, dysphasia, migraine and other headaches, insomnia, dementia, migraine and ataxia	1	5	10	15	30

• **M9U1 Pain, Syncope, Dizziness and vertigo**

9.1.1. The pathophysiology, symptoms, diagnosis of pain, syncope, dizziness and vertigo

9.1.2. The Clinical examination and illustration on the differential diagnoses of pain, syncope, dizziness and vertigo associated with neurological disorders

9.1.3. Demonstration of proficiency in evaluating pain, syncope, dizziness and vertigo

• **M9U2 Fatigue, Numbness, Gait and balance disturbances**

9.2.1. The pathophysiology, symptoms and diagnosis of fatigue, numbness, gait and balance disturbances

9.2.2. The Clinical examination of fatigue, numbness, gait and balance disturbances

9.2.3. Demonstration of proficiency in evaluating fatigue, numbness, gait and balance disturbances

• **M9U3 Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia**

9.3.1. The pathophysiology, symptoms and diagnosis of confusion, delirium, coma, aphasia, dysphasia and dementia

9.3.2. The Clinical Examination of confusion, delirium, coma, aphasia, dysphasia and dementia

9.3.3. Demonstration of proficiency in evaluating confusion, delirium, coma, aphasia, dysphasia and dementia

• **M9U4 Migraine and other headaches, Insomnia**

	9.4.1. The pathophysiology, symptoms, diagnosis of migraine and other headaches, and insomnia 9.4.2. The Clinical Examination of migraine and other headaches, and insomnia 9.4.3. Demonstration of proficiency in evaluating migraine and other headaches, and insomnia • M9U5 Spino cerebellar ataxia 9.5.1. The pathophysiology, symptoms and diagnosis of ataxia 9.5.2. The Clinical Examination of ataxia 9.5.3. Demonstration of proficiency in evaluating ataxia					
		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 : Varmam Therapy						
Module Learning Objectives (At the end of the module, the students should be able to)						
Describe the definition, terminology, role, uniqueness, history and evolution of <i>varmam</i> & <i>karu urpathi</i> and elaborate on the basic principles of 96 <i>thathuvangal</i>, 14 <i>vegangal</i> and their importance in <i>varmam</i> Discuss the relationship of <i>Iym boodham thathuvam</i>, <i>moovudal thathuvam</i>, <i>mukkalai thathuvam</i> and <i>mummandala thathuvam</i> in <i>varmam</i> Review of various research works in <i>varmam</i>						
Unit 1 Fundamentals of varmam						
1.1.1. Traverse the concept of <i>varmam</i>: definition, principles, ethics, history, and development. 1.1.2. Manipulation methods of <i>varmam</i> therapy						
References: 3,5,10,14,30,40,53,55						
3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Define the role, synonyms, terminology, ethics, uniqueness, history and evolution of <i>varmam</i>	2	Lecture	CC	Know	L,L&PPT

CO1,CO2,CO5	Demonstrate Role and uniqueness of <i>varmam</i>	4	Practical Training 1.1	PSY-GUD	Shows-how	CBL,DIS,D
CO1,CO2,CO5	Document <i>varmam</i> from various <i>varmam</i> practitioners	5	Experiential-Learning 1.1	PSY-MEC	Does	PER,FV,RP,DIS

Unit 2 Karu urpathi, 96 thathuvam and 14 vegangal

- 1.2.1. *Karu urapathi*, principles of 96 *thathuvangal* and 14 *vengangal*, and their role in *varmam*.
 1.2.2. The human body's relationship with the 14 *vengangal*.
 1.2.3. Fundamentals of *karu urpathi*, 14 *vengangal*, and 96 *thathuvangal* concerning modern science.

References: 1,3,8,10,17,30,40,48,49,53,64,86,99

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Describe the Fundamental Principles of Kuru Urpathi, 96 Thathuvangal, and 14 Vegangal: Analyzing their Role and Importance in Varma Maruthuvam Practice	2	Lecture	CC	Knows-how	L&PPT, L&GD
CO1,CO2,CO5	Compare and apply the basic principles of 96 <i>thathuvangal</i> , <i>karu urpathi</i> and establish the relationship between human body and 14 <i>vegangal</i>	4	Practical Training 1.2	CAP	Shows-how	DIS,BS
CO1,CO2,CO5	Interpret the <i>karu urpathi</i> , 14 <i>vegangal</i> and 96 <i>thathuvangal</i> in comparison with modern science	5	Experiential-Learning 1.2	PSY-MEC	Does	EDU,DIS

Unit 3 Iym boodha thathuvam and Moovudal thathuvam in varmam

- 1.3.1. *Iyam bootham thathuvam* (five elemental theory) and *moovudal thathuvam* (three bodies concept), and their Interrelationship with the human body.
 1.3.2. The Mechanisms of *iyam bootham thathuvam* (five elemental theory) - *moovudal Thathuvam* (three bodies concept), and 96 *thathuvam* (96 principles)

References: 1,3,8,10,17,30,40,48,49,53,64,86

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Analyze the Interplay of Iym Boodha Thathuvam (5 Elemental Theory) and Moovudal Thathuvam (3 Bodies) in Human Physiology	2	Lecture	CAN	Knows-how	L&GD,L, L&PPT
CO1,CO2,CO5	Demonstrate the mechanism of the 5 elemental theory, the relationship between the three bodies and 96 <i>thathuvangal</i>	4	Practical Training 1.3	PSY-GUD	Shows-how	DIS,IBL, D
CO1,CO2,CO5	Analyse the concept of 5 elemental theory and <i>moovudal</i> in <i>varmam</i>	5	Experiential-Learning 1.3	PSY-MEC	Does	TBL,D,C BL,SDL

Unit 4 Mukkalai thathuvam and Mummandala thathuvam in varmam

1.4.1. *Mukkalai & mummandala thathuvam* (principles of three dispersements & three zones)

1.4.2. *Mukkalai* with *thuvathasa naadi* ,*mummandalam* and *moovudal* (principles of three dispersements with twelve channels & three bodies)

References: 1,3,8,10,17,30,40,48,49,53,86

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Describe the theory of <i>mukkalai & mummandala thathuvam</i>	2	Lecture	CE	Knows-how	L,L&PPT
CO1,CO2,CO5	Facilitate the relationship between <i>mukkalai</i> , <i>mummandalam</i> and human body.	4	Practical Training 1.4	PSY-GUD	Shows-how	SDL,BS
CO1,CO2,CO5	Correlate the features of <i>mukkalai</i> with 12 <i>naadi</i> , <i>mummandalam</i> and <i>moovudal</i>	5	Experiential-Learning 1.4	AFT-SET	Does	D,RP,DIS

Unit 5 Varmam research studies and document the ancient texts

1.5.1. Review of various *varmam* research

1.5.2. Collection of data from various sources regarding *varmam* and decoding of manuscripts

1.5.3. Compilation and examination of *varmam* data documentation and statistical analysis.

References: 46

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Review on various <i>varmam</i> research	2	Lecture	CE	Knows-how	LS,L&GD
CO1,CO2,CO5	Collect the datas from the various sources regarding <i>varmam</i> and decoding of manuscripts	4	Practical Training 1.5	PSY-GUD	Shows-how	FV,LS,D
CO1,CO2,CO5	Enlist and analyse the collected data in <i>varmam</i>	6	Experiential-Learning 1.5	PSY-MEC	Does	TBL,C_L,SDL,EDU,DIS

Practical Training Activity

Practical Training 1.1 : Role and uniqueness of *varmam*

Total activity: 4 hrs

Activity 1: Demonstration (1 hr)

Step 1: The teacher describes to the students the concept of *varmam*, its historical significance and its application (30 min)

Step 2:The teacher shows video demonstrations on how *varmam* works in the human body. (30 min)

Activity 2: Case- Based Learning (2 hrs)

The teacher will present case studies where *varmam* was successfully used in real life to treat conditions like arthritis, muscle injuries, or even stress-related ailments.

Activity 3: Discussion(1 hr)

The teacher will assess the students based on analysing and discussing the role of *varmam* in the treatment process.

Practical Training 1.2 : 96 *thathuvangal*, *karu urpathi* relationship between human body and 14 *vegangal*

Total activity:- 4 hr

Activity 1: Brainstorming(2 hours)

The teacher will lecture in brief about the 96 *thathuvangal* and its relationship with the human body and different stages of *karu urpathi*

Activity 2: Discussion (1 hour)

The teacher will divide students into groups and ask them to discuss 96 *thathuvangal* within groups and encourage them to take key notes about the 96 *thathuvangal*- stages of *karu urpathi* - pediatric aspect - normal and abnormal human body

Activity 3: Debate (1 hour)

The teacher will assess the student by conduct a debate about 96 *thathuvangal* and the relationship between the human body and 14 *vegangal* based on their key notes

Practical Training 1.3 : Mechanism of 5 elemental theory, the relationship between the three bodies and 96 *thathuvangal*

Total activity:- 4 hrs

Activity: Demonstration (2 hours)

The teacher will demonstrate the foundation of the 5 elemental theory, role of the 5 elemental theory to both the macrocosm (universe) and the microcosm (human body), and its role in health by use visual aids such as charts, diagrams, and body maps to illustrate of the each element corresponds to physical, mental, and spiritual functions

Activity 2: Inquiry-Based Learning (1 hour)

The teacher divides the students into groups and asks them to reflect on how each of the 5 elements could affect their physical, mental, and spiritual well-being.

Activity 3: Discussion (1 hour)

The teacher provides the students with practical tools or lifestyle changes that they can use to balance the 5 elements and the 96 principles in their own lives.

Practical Training 1.4 : Correlation between *mukkalai*, *mummandalam* in human body.

Total activity:- 4 hrs

Activity 1: Brainstorming (2 hours)

Step 1: The teacher presents the lecture on the *mukkalai* and *mummandalam* overlap and reflect each other in human physiology by using visual aids like body diagrams to map out (1 hour)

Step 2: The teacher will facilitate to the students how the nervous system, circulatory system, digestive system and musculoskeletal system are influenced by *mukkalai* and *mummandalam* (1 hour)

Activity 2: Self-directed Learning (2 hours)

The teacher will teach students to perform a self-assessment to understand which division of their body feels most imbalanced

Practical Training 1.5 : Data collection from various sources and decoding of *varmam* manuscripts

Total activity:- 4 hrs

Activity 1: Demonstration (2 hours)

Step 1: The teacher will describe the importance of collecting data from various sources to understand completely about *varmam* (1 hour)

Step 2: The teacher will demonstrate that decoding manuscripts is crucial for preserving, understanding, and sharing ancient wisdom. (1 hour)

Activity 2: Library session(1 hour)

The teacher will guide the students with the skills and techniques necessary for collecting data from a variety of sources, including traditional texts, oral traditions, and modern interpretations in the library

Activity 3: Field visit (1 hour)

The teacher will organise a field trip or virtual visit to an archive, or *varmam* practitioner's workshop. The teacher will assess the students by observing and interacting with resources, taking notes and collecting relevant data

Experiential learning Activity

Experiential-Learning 1.1 : The role and uniqueness of *varmam*, documentation from various *varmam* practitioners

Total activity : 5 hrs

Activity 1: Field visit (3 hours)

Step1: The students will approach the traditional practitioners respectfully and document the traditional and sacred nature of the practice. (1 hour)

Step 2: The students will be get knowlwdge and document the theoretical concepts they've learned to the practical knowledge they've gathered through fieldwork. (2 hours)

Step 3: The students will discuss the importance of informed consent, particularly if they are recording interviews or video footage with the teacher. (15 minutes)

Activity 2: Roleplays(60 minutes)

The students will practice their interviewing skills by role-playing with each other before conducting interviews with actual practitioners.

Activity 3: Presentation (30 minutes)

Step 1: The students will present their documentation to the class.They can use slideshows, videos, or even live demonstrations of techniques they learned during their fieldwork.

Activity 4: Discussion (30 minutes)

The students will discuss the underlying principles of *varmam* and conclude their log book

Experiential-Learning 1.2 : *Karu urpathi*, *14 vegangal* and *96 thathuvangal* in comparison with modern science

Total activity:- 5 hrs

Activity 1: Edutainment (1 hour)

The students will prepare a model on the different stages of *karu urpathi*.

Activity 2: Discussion(2 hours)

The students will have group discussions regarding the concept of *14 vegangal* and modern science

Activity 3: Debate (2 hours)

The students will correlate the concept of *96 thathuvangal* and scientific evidence through debate

Experiential-Learning 1.3 : The concept of 5 elemental theory on *moovudal* in *varmam*

Total activity :- 5 hr

Activity 1: Team-Based Learning (2 hours)

Step 1: The students will work in groups to identify how a particular element might manifest in each of the three bodies in a healthy and imbalanced state. (1 hour)

Step 2: The students will prepare a flowchart to visually show how the 96 *thathuvam* intersect with the 5 elements and how these elements influence the three bodies (1 hour)

Activity 2: Case-Based Learning (1 hour)

The students will present a case study of an individual or a hypothetical situation where the balance of elements and principles is disrupted.

Activity 3: Demonstration (1 hour)

The students will demonstrate that the 96 *thathuvangal* are affected in all three bodies when there is a disturbance in the 5 elements.

Activity 4: Self-directed learning (1 hour)

Students to ask questions, share insights, and discuss how they plan to apply these teachings in their personal or professional lives

Experiential-Learning 1.4 : The *mukkalai* with 12 *naadi*, *mummandalam* and *moovudal*

Total activity :- 5 hrs

Activity 1: Role plays

Step 1: The students role play to simulate a consultation where one student acts as the practitioner and the other as the patient. (1 hour)

Step 2: The students can use their knowledge of *mukkalai* and *mummandalam* to identify imbalances and suggest appropriate lifestyle adjustments, exercises, or treatments. (1 hour)

Activity 2: Demonstration

Step 1: The students divide into groups and each group one of the 12 *naadis* to explore in-depth. (1 hour)

Step 2: The students will present their *naadi* findings in health functions and practices can be used to restore balance. (1 hour)

Activity 3 : Discussion

The students will have an open discussion on *mukkalai* and *mummandalam* are relevant in today's health and wellness paradigms, and balanced integrated into modern practices. (1 hour)

Experiential-Learning 1.5 : Compilation and documentation of the collected data from various sources

Total activity:- 6 hrs

Activity 1: Team-Based Work (1 hours 30 mins)

Step 1: The students will be divided into teams, each focusing on a specific manuscript or data source.

Students will be translating and interpreting small sections of a manuscript (either physical or digital). This can be done individually or in groups, with guidance from the

instructor. (1 hour)

Step 2: Teams can present their findings and discuss the similarities and differences across the sources, promoting collaborative analysis. (30 mins)

Activity 2: Presentations (1 hour)

Step 3: The students will present their research findings, including the decoded manuscript sections and their understanding of the *Varmam* points described within and discuss how the text's knowledge could be applied today.

Activity 3: Project-Based Learning (3 hours 30 mins)

Step 4: As a group project, students will create a digital repository or catalogue of their findings, including translations, interpretations, and diagrams from the manuscripts. (This database could serve as a valuable resource for future researchers.)

Modular Assessment

Assessment method	Hour
INSTRUCTIONS Conduct a structured modular assessment. The assessment will be 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point according to Table 6C Assess basic knowledge of the subject by following the criteria- 50 marks Active participation in interactive sessions and group discussions on 96 thathuvam (10 marks) Evaluation of summary reports of field visit (15 marks) Preparing flow charts and creating body diagrams (10 marks) Presentation of a minimum of two case studies (15 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 : Sara soothiram and amirtha nilai thathuvam

Module Learning Objectives

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

Describe the formation and distribution of *vaasi*

Analyze the circulation of life energy in 12 *vaasi* sites and 30 elixir sites

Identify the Importance of *naadi in varmam*, signs and symptoms of different types of pulse

Correlate pulse variations with diagnosis, explain the *guru naadi* and *saathiya*, *asaathiya naadi* and *panchapatchi* with *varmam*: principles and applications.

Unit 1 Vaasi and its formation

2.1.1. Formation of *vaasi* and the *aathara Chakram*

2.1.2. *Vaasi* in *aadhara chakaram* and its activation

2.1.3. The Interrelationship between *Vaasi*, *Aathara Chakram*, and *Varmam*.

References: 1,3,8,10,15,17,48,49,56

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Formulate of <i>vaasi</i> and the <i>aathara chakaram</i>	2	Lecture	CK	Knows-how	L,L&GD, DIS
CO1,CO2	Analyse <i>vaasi</i> in <i>aathara chakaram</i> and its activation	4	Practical Training 2.1	PSY-ADT	Shows-how	D,BS
CO1,CO2	Demonstrate the relationship between <i>vaasi</i> , <i>aathara chakaram</i> and <i>varmam</i>	5	Experiential-Learning 2.1	PSY-MEC	Does	BS,D-M, L&PPT

Unit 2 Circulation of amirtha, visha, Nana kalai based on thithi sites

2.2.1. *Amirthanilai, vishanilai, nananilai thalangal* & its importance

2.2.2. *Amirthanilai* and documentation of flow of bioenergy in *amirthanilai* sites

References: 1,3,10,15,18,32,56,57

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Elaborate <i>amirthanilai, vishanilai, nananilai- thalangal</i> & its importance	2	Lecture	CK	Knows-how	L&PPT ,L
CO1,CO2	Distinguish <i>amirthakalai, vishakalai, nanakalai- thalangal</i>	4	Practical Training 2.2	PSY-GUD	Shows-how	LS,FV,PE R
CO1,CO2	Analyse <i>amirthakalai</i> and document the flow of bioenergy in <i>amirthakalai</i> sites	5	Experiential-Learning 2.2	PSY-MEC	Does	DIS,SDL, PL,EDU

Unit 3 Role of vaasi kalai in 12 months & 27 stars

2.3.1. The role of *vaasi* in 12 months and 27 (*Nakshatram*) stars

2.3.2. The relationship between *vaasi* in 12 months, 27 stars

2.3.3. The mechanism of action of *vaasi* with the 12 *rasis*, 27(*Nakshatram*)

References: 1,3,7,10,17,32,48,57,64,66

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Discuss the role of <i>vaasi kalai</i> in 12 <i>raasi</i> and 27 stars	2	Lecture	CK	Know	L&PPT ,L,L&GD

CO1,CO2	Analyse the relationship between <i>vaasi kalai</i> in 12 <i>raasi</i> and 27 stars	4	Practical Training 2.3	PSY-GUD	Shows-how	D,BS
CO1,CO2	Demonstrate the mechanism of action of <i>vaasi kalai</i> in 12 <i>raasi</i> and 27 stars	5	Experiential-Learning 2.3	PSY-MEC	Does	D,SDL,TBL,RLE,DIS

Unit 4 Role of Naadi Diagnosis in Varmam maruthuvam

- 2.4.1. The importance of various types of *naadi*, including *guru naadi*, *saathiya asaathiya naadi* in *varmam*, and general features of *naadi*
2.4.2. The *Naadi* (pulse) variation in *varmam*
2.4.3. The variation of *Naadi* (pulse) in different clinical conditions

References: 1,3,10,12,15,19,23,53,56,62

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Explain the Importance of various types of <i>naadi</i> including <i>guru naadi</i> , <i>sathiya asathiya naadi</i> in <i>varmam</i> and general features of <i>naadi</i>	2	Lecture	CK	Know	L&PPT ,L
CO1,CO2	Analyse the variation of <i>naadi</i> (pulse) in <i>varmam</i>	4	Practical Training 2.4	PSY-GUD	Shows-how	D,PT
CO1,CO2	Document the variation of <i>naadi</i> (pulse) in different <i>varmam</i> clinical condition	6	Experiential-Learning 2.4	PSY-MEC	Does	CBL,DIS,PSM

Unit 5 Panchapatchi in varmam

- 2.5.1. The importance of *panchapatchi* in *varmam*
2.5.2. Demonstration and analysis of *panchapatchi* in *varmam*
2.5.3. Application and Documentation of *panchapatchi* in *varmam*

References: 52,115

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Describe the significance of <i>panchapatchi</i> in <i>varmam</i>	2	Lecture	CK	Know	L&PPT ,L
CO1,CO2	Demonstrate and analyse <i>panchapatchi</i> in <i>varmam</i>	4	Practical Training 2.5	PSY-GUD	Shows-how	DIS,D
CO1,CO2	Apply and document <i>panchapatchi</i> in <i>varmam</i> clinical conditions	5	Experiential-Learning 2.5	PSY-MEC	Does	LS,PER,R P

Practical Training Activity

Practical Training 2.1 : Location and stimulation of *vaasi* - *aathara chakaram*

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hr 30 mins)

Step 1:The teacher will describe the anatomical and energetic layout of *vaasi* within the *aathara chakaram*, and its relationship with the human body (1 hour)

Step 2:The teacher will assess the student based on their logbook notes (30 min)

Activity 2: Demonstration (2 hrs 30 mins)

Step 1: The teacher will demonstrate the types & the steps *pranayamam*, describe the mechanism of *pranayamam* to activate the own energy channels and become more attuned to the flow of *vaasi* (1 hr)

Step 2: The teacher will demonstrate the hands-on technique (based on *siddha*, *varmam*) to help activate or balance the *vaasi* with the corresponding *aathara chakkaram*. (This may include light touch or pressure at specific points along the *aathara chakram* to stimulate energy flow) (1 hr)

Step 3: The teacher will assess the student based on their logbook notes (30 min)

Practical Training 2.2 : *Amirthakalai* ,*visakalai* and *naanakalai* - Correlation

Total activity:- 4 hrs

Activity 1: Presentation (1 hour)

The teacher will make a presentation about the concepts of *amirthakalai*,*visakalai* and *naanakalai* and explain their significance concerning the human body, energy, and balance through PPT

Activity 2: Field visit / Library session (3 hours)

Step 1:The teacher will guide to collection of data about the relationship with *amirthakalai*,*visakalai* and *naanakalai* based on *thithi* by Portfolios, experts or their books in the

library(2 hrs 30 min)

Step 2: The teacher will assess the students based on their logbook (30 min)

Practical Training 2.3 : *Vaasi kalai* mechanism with 27 Stars

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hr 40 mins)

Step 1: The teacher will provide an overview of the influence of the moon's position on the *vaasi kalai* flow, impacting a person's physical health, emotions, and mental states through PPT (50 min)

Step 2: The teacher will describe the cycle of the moon and its monthly transit through the 12 *raasi* and the 27 *nakshatras* affect the individual energetically and physiologically through PPT(50 min)

Activity 2: Demonstration (2 hrs 20 mins)

Step 1: The teacher will describe to the students to read the birth chart and identification of the positions of the moon, *raasi*, and stars through PPT (50 min)

Step 2: The teacher will demonstrate the moon, *raasi* and stars positions concerning the flow of *vaasi kalai* with suitable examples (eg, horoscope) (50 min)

Step 3: The teacher will assess the student by following criteria(40 min)

- 1) Moon's position on the *vaasi kalai* flow
- 2) Correlation between *Raasi and stars*
- 3) Illustrate the barth chart

Practical Training 2.4 : Flow of *naadi* based on *varmam* and derangement of *naadi* in clinical condition

Total activity:- 4 hrs

Activity 1: Demonstration (2 hours)

Step 1:The teacher will demonstrate the pulse reading on different parts of the body (e.g., wrist, neck) to detect variations in frequency, rhythm, strength, and tension. (1 hour)

Step 2:The teacher will demonstrate *varmam* manipulation can influence the *naadi* by stimulating or balancing energy flow. (1 hour)

Activity 2: Practical (2 hours)

Step 1: The teacher will organise the practical sessions where students can work in pairs to check each other's pulse while applying pressure to different *varmam* points on the body. (1 hour)

Step 2: The teacher will assess the student by following the criteria (1 hour)

- 1) Document about the changes in the pulse with the manipulation of each point.
- 2) Distinguish which specific *varmam* points affect which pulse qualities

Practical Training 2.5 : *Panchapatchi* in *varmam* clinical condition

Total activity:- 4 hrs
 Activity: Demonstration, Discussion
 Step 1: The teacher will demonstrate, the 5 birds corresponds to one of the five elements in the body and their influence on physical, mental, and emotional health. (2 hours)
 Step 2: The teacher will demonstrate to diagnose the dominant bird energies in a person using *panchapatchi* principles. (1 hour)
 Step 3: The teacher will assess the students based on their log book (1 hr)

Experiential learning Activity

Experiential-Learning 2.1 : The relationship between *vaasi*, *aathara chakram* and *varmam*

Total activity :- 5 hrs
 Activity 1: Brainstorming (1 hour)
 Step 1: The student will take a seminar about the *vaasi ottam nilaikal* (energy flow) through PPT to final year students/CRRI
 Activity 2: Demonstration on models (4 hours)
 Step 1: The student will demonstrate of *vaasi* activation techniques to final year students/CRRI (2 hours)
 Step 2: The student will use the 3d models to highlight the *varmam* points and explain their relationship to *vaasi* and *aathara chakram* (2 hours)

Experiential-Learning 2.2 : The flow of bio energy (*vaasi*), lunar based energy in 30 *amritha kalai* (elixir) sites

Total activity:- 5 hrs
 Activity 1: Edutainment (1 hour)
 The students will make diagrams or 3d models to visually depict these elixir points and highlight their relationship with *vaasi* and lunar energy
 Activity 2: Discussion (2 hours)
 The students will make the group discussion will be done to discuss the disruptions in the flow of *vaasi* at these sites can lead to health issues or energy blockages
 Activity 3: Peer Learning (1 hour)
 The students will keep a journal or log book to track these bio energy patterns over time, correlating their findings with their personal or others' energy states.
 Activity 4: Self-directed learning (1 hour)
 The students self-divide into small groups and assign each group a case study of a person experiencing an imbalance. (the *amirtha kalai* points and their *vaasi* flow over a month, and correlate this with the lunar phase)

Experiential-Learning 2.3 : Role *Vaasi kalai* in 12 *raasi* and 27 stars

Total activity:- 5hrs

Activity 1: Brainstorming (2 hours)

Step 1: The student will have interactive group demonstrations where students can identify energy changes in the body based on the *raasi*. (1 hour)

Step 2: The student will track the moon's transits through both the *raasi* and *nakshatras* over a lunar cycle. They will use a daily log to record the energetic shifts they feel in themselves or a volunteer subject. (1 hour)

Activity 2: Demonstration (1 hour)

The students will demonstrate the energy mapping techniques, like chakra mapping or meridian mapping, to show how *vaasi kalai* flows through the body during the moon's transit through different *raasi* and *nakshatras*.

Activity 3: Discussion(2 hours)

The students will conclude with a group discussion where students share their findings, compare experiences, and discuss patterns they have observed during the moon's transit through different *raasi* and *nakshatras*

Experiential-Learning 2.4 : *Naadi* variation associated with the various *varmam* clinical conditions

Total activity:- 6 hrs

Activity 1: Case-Based Learning (3 hours)

Step 1: The students will make a presentation through PPT about real-time changes in the pulse as the *varmam* points are manipulated (1 hour)

Step 2:The students will present the case studies where a patient has a known imbalance. (2 hours)

- regarding pulse readings to correlate the *naadi* variation with the *varmam* points linked to the affected systems or organs.

Activity 2: Discussion (2 hours)

Group discussion where students can compare findings and suggest treatment or correctional practices to restore balance. concluded in their logbook

Activity 3: Problem-Solving Methods (1 hour)

Step 4: After the GD concluded on their logbook-based review of students' findings, where they can ask questions, share challenges, and refine their approach to pulse reading and *varmam* manipulation. (1 hour)

Experiential-Learning 2.5 : *Panchapatchi* variations in *varmam* clinical conditions

Total activity:- 5 hrs

Activity 1: Library Session (1 hr)

The student reviews a lot of literature in the library & documents the details about the relation between *Panchapatchi* and *varmam*

Activity 2: Presentations (1 hr)

The students will make a presentation about a full diagnostic session to identify which *panchapatchi* bird is dominant in their patient based on physical, emotional, and behavioural cues.

Activity 3: Roleplays (3 hrs)

Step 1: The students will divide into two groups, one student plays the role of the doctor and the other plays the patient. The role of the doctor will be performed based on the bird energy diagnosis, selecting appropriate varmam points to balance the identified excess or deficiency of the bird/element. (2 hrs)

Step 2: The student notes the conclusion of above mentioned activities in their logbook. (1 hr)

Modular Assessment

Assessment method

Hour

INSTRUCTIONS

Conduct a structured modular assessment. Assessment will be 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C

Assess basic knowledge about the subject 50 marks

Creating diagrams and 3D models (15 marks)

Group discussion and Demonstration of variation in pulse and its importance in diagnosis (10 marks)

Application-based Questions (15 marks)

Assessment by log books (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 3 : Classification of varmam points

Module Learning Objectives

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

- Explain the various classifications of *varmam* Points
- Describe the manipulation of various *varmam* points based on classification
- Demonstrate Varmam techniques based on Medical, Traumatic, and Regional classifications.
- Apply Naadi analysis and Aadharam principles in Varmam practice.

Unit 1 Medical classification, Traumatic classification and Regional classification

- 3.1.1. The medical, traumatic and regional classification of *varmam*
- 3.1.2. Classification of *varmam* based on manipulation techniques.

References: 1,5,9,12,13,16,17,22,23,35,36,41,42,86

3A	3B	3C	3D	3E	3F	3G
CO1	Elucidate medical classification, Traumatic classification and Regional classification of <i>varmam</i>	2	Lecture	CK	Knows-how	C_L,L&P PT ,L
CO1	Summarise varmam based on medical, Traumatic and Regional classification	4	Practical Training 3.1	PSY-GUD	Shows-how	D,RP
CO1	Manipulate varmam points based on Medical,Regional and Traumatic classification.	6	Experiential-Learning 3.1	PSY-MEC	Does	D,DIS,SD L,RLE,PE R

Unit 2 Classification based on Naadi and Aadharam

- 3.2.1. Classification of *varmam* based on *naadi* and *aadharam*
- 3.2.2. The relationship between *varmam* with *naadi* and *aadharam*
- 3.2.3. Documentation of the flow of *naadi* concerning *varmam* and *aadharam*

References: 1,5,7,8,9,12,13,16,17,22,23,35,36,41,42,86

3A	3B	3C	3D	3E	3F	3G
CO1	Discuss the classification of <i>varmam</i> based on <i>naadi</i> and <i>Aadharam</i>	2	Lecture	CK	Knows-how	L&PPT, L, DG
CO1	Distinguish the relationship between <i>varmam</i> with <i>naadi</i> and <i>Aadharam</i>	4	Practical Training 3.2	PSY-GUD	Shows-how	CBL, D, D-BED, DIS
CO1	Document the of flow of <i>naadi</i> with <i>Aatharam</i>	5	Experiential-Learning 3.2	PSY-MEC	Does	PER, DIS, CBL

Unit 3 Classification based on Mukkuttram, Panchabootham and Alavai

- 3.3.1. Classification of *varmam* based on *mukkuttram*, *panchabootham* and *alavai*
- 3.3.2. Manipulation of *varmam* based on *mukkuttram*, *panchabootham* and *alavai*

References: 1,5,23,86

3A	3B	3C	3D	3E	3F	3G
CO1	Discuss the classification of <i>varma</i> based on <i>Mukkuttram</i> , <i>panchabootham</i> and <i>alavai</i>	2	Lecture	CK	Know	L, L&PPT
CO1	Summarize <i>varmam</i> based on <i>mukkuttram</i> , <i>panchabootham</i> and <i>alavai</i>	4	Practical Training 3.3	PSY-GUD	Shows-how	DIS, PBL, PER, CBL

						,D
CO1	Manipulate <i>varmam</i> points based on <i>mukkuttram</i> , <i>panchabootham</i> and <i>alavai</i>	5	Experiential-Learning 3.3	PSY-MEC	Does	TBL,DIS,PER,CBL,EDU

Unit 4 Prognostic classification, Qualitative classification, Structural classification, Single, multiple classification and Gender classification,Anaesthetic *varmam* points

- 3.4.1. Classification of *varmam* based on prognosis, structure, qualitative,single-multiple and gender and anaesthetic *varmam* points
3.4.2. Manipulation of *varmam* points based on prognosis, structure, qualitative,single-multiple and gender and anaesthetic *varmam* points

References: 1,3,5,9,12,13,16,17,22,23,35,36,41,42,86

3A	3B	3C	3D	3E	3F	3G
CO1	Classify <i>varmam</i> based on Prognosis, ,Qualitative,Single-multiple, Anaesthetic <i>varmam</i> points	2	Lecture	CK	Know	L&PPT ,L
CO1	Summarize the classification of <i>varmam</i> based on Prognosis, Qualitative,Single-multiple and anasthetic <i>varmam</i> points	4	Practical Training 3.4	PSY-MEC	Shows-how	D,BS,PE R,CBL
CO1	Manipulate <i>varmam</i> points based on Prognosis,Qualitative,Single-multiple and anasthetic <i>varmam</i>	5	Experiential-Learning 3.4	PSY-MEC	Does	CBL

Unit 5 Classification based on structure, gender ,ottrai-erattai(numerical)

- 3.5.1. Classification of *varmam* based on structure, gender and ennikkai (numerical) Categories.
3.5.2. Manipulation of *varmam* points based on structure, gender and ennikkai (numerical)

References: 1,3,5,9,12,13,16,17,22,23,35,36,41,42,86

3A	3B	3C	3D	3E	3F	3G
CO1	Classify <i>varmam</i> based on structure, gender and <i>ennikkai</i> (numerical)	2	Lecture	CK	Know	L,I&PPT
CO1	Summarize the classification of <i>varmam</i> based on structure, gender and <i>ennikkai</i> (numerical)	4	Practical Training 3.5	PSY-GUD	Shows-how	BS,RP,CBL
CO1	Manipulate <i>varmam</i> based on structure, gender and <i>ennikkai</i> (numerical)	5	Experiential-Learning 3.5	PSY-MEC	Does	CBL,SDL

Practical Training Activity

Practical Training 3.1 : Medical, Traumatic and Regional classification of *varmam*

Total activity:- 4 hrs

Activity 1: Demonstration (2 hours)

Step 1: The teacher will describe the basics of anatomy, physiology, trauma and injury through PPT (1 hour)

Step 2: The teacher will demonstrate hands-on demonstrations of the specific techniques for each condition for easier understanding. (1 hour)

Activity 2: Case-Based Learning (1 hour)

The teacher will describe the case studies based on diagnostic conditions and select the appropriate *varmam* points.

Activity 3: Roleplays (1 hour)

The teacher will assess the student based on role-play by following the criteria (1 hour)

- 1) First aid for various injuries
- 2) Peculiar examination
- 3) Differential diagnosis
- 4) Line of treatment
- 5) Suitable exercise

Practical Training 3.2 : The relationship between *varmam* with *naadi* and *aadharam*

Total activity:- 4 hrs

Activity 1: Brainstorming (1hr 50 mins)

Step 1: The teacher will describe the theoretical foundations of *naadi*, explaining how it reflects the body's internal energies, the three *doshas*, and the imbalance in these energies through PPT (1 hour)

Step 2: The teacher will describe *naadi* findings that influence the selection of *varmam* points and treatment through PPT (50 min)

Activity 2: Demonstration (50 mins)

Step 1: The teacher will demonstrate to the students how to monitor the pulse before, during, and after *varmam* treatment. (50 min)

Activity 3: Presentations (1 hr 20 mins)

Step 4: The teacher presents the case stories based on pulse changes, and regular *naadi* readings help assess the effectiveness of therapy. (50 min)

Step 5: The teacher will assess the student based on their log book (30 min)

Practical Training 3.3 : *Varmam* based on *mukkuttram*, *panchabootham* and *alavai*

Total activity:- 4 hrs

Activity 1: Brainstorming(1 hour)

Step 1:The staff will describe the *vadham*, *pitham*, and *kabham* imbalances that affect the body's energy flow and influence which *varmam* points should be targeted through PPT

Activity 2: Demonstration (2 hours)

Step 2:The staff will demonstrate how to identify and treat specific *varmam* points based on the dominant *dosham*.

Activity 3: Case-Based Learning (1 hour)

Step 1:The staff will present complex case studies and ask students to analyse the patient's *dosham* imbalance, identify the dominant elements. (30 minutes)

Step 2:The staff will assess the student based on specific *varmam* points administration for the comprehensive analysis. (30 minutes)

Practical Training 3.4 : *Varmam* based on qualitative,single-multiple and prognosis and application of anasthetic *varmam* points

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

Step 1:The teacher will describe how the prognosis of a patient's condition affects the selection of *varmam* points.
(Explain the differences between acute, chronic, and terminal conditions and how this influences treatment.)(1 hour)

Activity 2: Demonstration (1 hour)

The teacher will demonstrate how different points require varying levels of pressure and how to assess the quality of the *varmam* point. (Have students practice stimulating these points using appropriate force.) (1 hour)

Activity 3: Case-Based Learning (2 hours)

Step 1:The teacher will present the complex clinical cases where students must integrate all four categories in a treatment plan. (Have them decide on the prognosis, the appropriate number and type of points (single or multiple), and whether anaesthetic points are needed) (1 hour)

Step 2:The teacher will assess the students with a list of conditions and ask them to plan a treatment using either single or multiple *varmam* points, depending on the condition's complexity. (1 hour)

Practical Training 3.5 : Classification of *varmam* based on gender,structure and *ottrai-erattai*

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

The teacher will describe to the students how to assess the patient's body structure and decide which *varmam* points should be activated based on whether the person is lean, muscular, or broad-shouldered (1 hour)

Activity 2: Problem-Based Learning (2 hours)

Step 1: The teacher will demonstrate to the students which *varmam* points are more relevant to each gender, considering anatomical and energy flow differences. (1 hour)

Step 2: The teacher will describe how to plan a treatment that considers all three factors (structure, gender, and numerical system) (1 hour)

Activity 3: Roleplays (1 hour)

The teacher will assess the student by role-playing scenarios where students treat male and female patients of different body structures. (This will help them develop decision-making skills in real-time settings.)

Experiential learning Activity**Experiential-Learning 3.1** : *Varmam* points application based on medical,regional and traumatic classification.

Total activity:- 6 hrs

Activity 1: Edutainment (2 hours)

Step 1: The students will prepare maps or diagrams showing *where the varmam* points are located on each body region. (They will also learn the anatomical landmarks for each point and its connection to organ systems.)

Activity 2: Self-directed Learning (2 hours)

The students will practice the *varmam* manipulation in pairs or groups. they are note their experience in the logbook

Activity 3: Presentations (1 hour)

Step 1: The student will make a PPT with the appropriate *varmam* points and mechanism based on the condition (30 minutes).

Step 2: The student will present case studies where students will diagnose a condition based on symptoms and signs. (30 minutes)

Activity 4: Real-Life Experience (1 hour)

The student will have clinical observations, where students assist practitioners in real-life traumatic injury cases.

Experiential-Learning 3.2 : The flow of *naadi* with *Aatharam*

Total activity:- 5 hrs

Activity 1: Case-Based Learning (3 hours)

Step 1: The student will present case studies where students must assess *naadi* and identify the appropriate *varmam* treatment based on their findings.(Discuss how pulse

readings can change with different health conditions.) (2 hours)
 Step 2: The student conducts quizzes or self-assessments where students can determine their dosha composition and identify their *naadi* (This helps them understand the practical application of the theory) (1 hour)
 Activity 2: Presentations (2 hours)
 Step 1: The student will present their findings on how *Naadi* flow influenced the outcomes of their treatments. (1 hour)
 Step 2: Discuss any adjustments made during treatment and conclude in their logbook (1 hour)

Experiential-Learning 3.3 : *Varmam* based on *mukkuttram*, *panchabootham* and *alavai*

Total activity :- 5 hrs
 Activity 1: Case-Based Learning (2 hours)
 Present case studies where students analyse *dosha* imbalances through pulse diagnosis or symptom observation and identify which *varmam* points should be used.
 Activity 2: Discussions (2 hours)
 Group discussions where students share their findings, approaches, and outcomes.
 Encourage them to reflect on their learning and adapt their treatments based on patient feedback.
 Activity 3: Edutainment (1 hour)
 The students are making charts about *Varmam* based on *mukkuttram*, *panchabootham* and *alavai*

Experiential-Learning 3.4 : Application of *varmam* according to the classification based on qualitative and prognosis

Total activity:- 5 hrs
 Activity 1: Case-Based Learning (3 hours)
 Step 1: The students will practice *varmam* on patients by considering the prognosis of the condition, choosing the corresponding *varmam* points, and applying the correct therapeutic pressure. (1 hour)
 Step 2: The students will present case studies that demonstrate acute, chronic, and fatal conditions through PPT (2 hours)
 Activity 2: Self-directed learning (1 hour)
 The students will create a map or chart of *varmam* points, highlighting the anaesthetic *varmam* points. (1 hour)
 Activity 2: Real-Time Experience (1 hour)
 The students will practice using anaesthetic points in real-time situations, such as on a partner with mild pain or discomfort, and instruct them on how to assess the effectiveness (1 hour)

Experiential-Learning 3.5 : Application of *varmam* according to the classification of *varmam* based on structure, gender and *ennikkai* (numerical)

Total activity:- 5 hrs Activity 1: Self-directed learning (2 hours) The students will practice on different body types, adjusting their technique based on the structural differences, ensuring that they apply the right amount of pressure for each body type & apply appropriate <i>varmam</i> points, adjusting for the body structure and gender differences. (2 hours) Activity 2: Case-Based Learning (2 hours) Step 1: The students will document the case series with a range of patient profiles based on structure, gender, and condition severity. (1 hour) Step 2: The students will present case studies with both single-point and dual-point manipulation techniques (1 hour) Activity 3: Edutainment (1 hour) The student will prepare charts based on <i>varmam</i> classification	
Modular Assessment	
Assessment method	Hour
INSTRUCTIONS Conduct a structured modular assessment. Assessment will be 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C Assess basic knowledge about the subject 50 marks Case study presentation (10 marks) Creating Maps or charts (10 marks) Participation in Quiz (10 marks) Powerpoint presentation on classification of <i>varmam</i> points (10 marks) Assessment through practical sessions (10 marks) Or Any practical in converted form can be taken for evaluation (25 marks) And Any of the experiential as portfolio/reflections/presentations can be taken as an assessment (25 marks)	4

Module 4 : Varmam naadi (pathway of vaasi) & vaayu thalangal

Module Learning Objectives

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

Discuss the 12 *naadi* in *varmam*, their significance, the pathway, *vaasi*, the circulation in *naadi*, and their branches.

Unit 1 Idakalai and pingalai naadi and its pathway

4.1.1. The importance of *Idakalai* and *pingalai naadi*, their pathway, and secondary branches

4.1.2. The *varma thoondal* and *thadaval* along the pathway of *idakalai* and *pingalai*

4.1.3. Application and demonstration proficiency in performing *varma thoondal* and *thadaval* for *idakalai* and *pingalai naadi*

References: 1,3,7,9,12,13,14,21,23,30,31,34,35,37,39,46,56,62

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Explain the pathways, branches and Importance of <i>Idakalai</i> and <i>pingalai naadi</i>	2	Lecture	CK	Knows-how	L&GD,L, L&PPT
CO1,CO2	Demonstrate the <i>Varma thoondal</i> and <i>thadaval</i> along the pathway of <i>idakalai</i> and <i>pingalai</i>	4	Practical Training 4.1	PSY-GUD	Shows-how	D,DIS,SIM
CO1,CO2	Apply and demonstrate <i>varma thoondal</i> and <i>thadaval</i> for <i>idakalai</i> and <i>pingalai naadi</i>	6	Experiential-Learning 4.1	PSY-MEC	Does	SDL,CBL, RLE

Unit 2 Suzhumunai, singuvai naadi and its pathway

4.2.1. The *suzhumunai* and *singuvai naadi* branches and their pathway

4.2.2. *Varma thadaval* along the path of *suzhumunai* and *singuvai*

4.2.3. *arma thadaval* for *suzhumunai* and *singuvai*

References: 1,3,7,9,12,13,14,21,22,30,31,34,35,37,39,46,56,62

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Describe the <i>suzhumunai</i> and <i>singuvai naadi</i> branches and their pathways.	2	Lecture	CK	Knows-how	L&PPT ,L
CO1,CO2	Demonstrate the <i>varma thadaval</i> technique along the <i>suzhumunai</i> and <i>singuvai</i> pathways	4	Practical Training 4.2	PSY-GUD	Shows-how	D,SDL,DIS
CO1,CO2	Apply the <i>varma thadaval</i> technique on the <i>suzhumunai</i> and <i>singuvai</i> pathways and reflect on your experience.	5	Experiential-Learning 4.2	PSY-MEC	Does	CBL,SDL ,DIS

Unit 3 Purudan, kandhari and athi naadi and its pathway

4.3.1. The *purudan*, *kandhari* and *athi naadi*, their pathway, primary and secondary branches

4.3.2. *Varma thadaval* along the pathway of *purudan*, *kandhari* and *athi naadi*

4.3.3. *Varma thadaval* for *purudan*, *kandhari* and *athi naadi*

References: 1,7,9,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Describe the significance of <i>purudan</i> , <i>kandhari</i> , and <i>athi naadi</i> , their pathways, and the role of their primary and secondary branches	2	Lecture	CK	Knows-how	L,L&PPT
CO1,CO2	Perform the <i>varma thadaval</i> along the pathway of <i>purudan</i> , <i>kandhari</i> and <i>athi naadi</i>	4	Practical Training 4.3	PSY-ADT	Shows-how	D,DIS,BS

CO1,CO2	Demonstrate <i>varma thadaval</i> for <i>purudan</i> , <i>kandhari</i> and <i>athi naadi</i>	5	Experiential-Learning 4.3	PSY-MEC	Does	CBL,DIS,SDL
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Unit 4 Alampurudan, sangini and kugu naadi and its pathway

4.4.1. The *alampurudan*, *sangini* and *kugu naadi*, their pathway, primary and secondary branches

4.4.2. *Varma thadaval* along the pathway of *alampurudan*, *sangini* and *kugu*

4.4.3. *Varma thadaval* for *alampurudan*, *sangini* and *kugu naadi*

References: 1,7,9,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Explain the importance of <i>alampurudan</i> , <i>sangini</i> and <i>kugu naadi</i> , its pathway and its primary and secondary branches	2	Lecture	CK	Knows-how	L,L&PPT
CO1,CO2	Perform the <i>varma thadaval</i> along the pathway of <i>alampurudan</i> , <i>sangini</i> and <i>kugu</i>	4	Practical Training 4.4	PSY-GUD	Shows-how	D,DIS,BS
CO1,CO2	Demonstrate <i>varma thadaval</i> for <i>alampurudan</i> , <i>sangini</i> and <i>kugu naadi</i>	5	Experiential-Learning 4.4	PSY-MEC	Does	CBL,SDL

Unit 5 Visothirai and paisini naadi and its pathway

4.5.1. Explanation of the importance of *visothirai* and *paisini naadi*, its main and branch pathways

4.5.2. *Varma thadaval* along the pathway of *visothirai* and *paisini*

4.5.3. *Varma thadaval* for *visothirai* and *paisini naadi*

References: 1,3,7,9,12,13,14,21,22,23,30,31,34,35,37,39,46,56,62

3A	3B	3C	3D	3E	3F	3G
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CO1,CO2	Explain the importance of <i>visothirai</i> and <i>paisini naadi</i> , including their main pathways and branches	2	Lecture	CK	Knows-how	L&PPT ,D,L
CO1,CO2	Perform the <i>varma thadaval</i> along the pathway of <i>visothirai</i> and <i>paisini</i>	4	Practical Training 4.5	PSY-GUD	Shows-how	D,DIS,SIM
CO1,CO2	Demonstrate <i>varma thadaval</i> for <i>visothirai</i> and <i>paisini naadi</i>	5	Experiential-Learning 4.5	PSY-MEC	Does	SDL,DIS,CBL

Practical Training Activity

Practical Training 4.1 : *Varma thadaval* along the pathway of *idakalai* and *pingalai*

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

The teacher will give a brief lecture to the students on the concepts of *idakalai* and *pingalai naadi* as energy channels within the human body and explain how *varma thoondal* and *thadaval* can be used to stimulate and balance these pathways. (1 hour):

Activity 2: Demonstration (1hr 30 mins)

Step 1: The teacher will show the physical techniques of *varma thoondal*, applying gentle tapping, rubbing, or pressure on key points that run along the pathways of *idakalai* and *pingalai naadi*. (Students will focus on how to stimulate the channels without causing harm or discomfort.) (1 hour)

Step 2: The teacher will demonstrate how to diagnose energy imbalances along the pathways of *idakalai* and *pingalai naadi* by observing physical symptoms and mental states (30 minutes).

Activity 3: Discussion (1 hr 30 min)

Step 1: The teacher will engage the students in group discussions about the importance of balancing these channels for maintaining overall health and how blockages in these pathways can lead to illness

Step 2: The teacher will assess the students, based on the explanation, to make a plan of the appropriate treatment protocol with *varma thoondal* and *thadaval* techniques.

Practical Training 4.2 : *Varma thadaval* technique demonstration: *suzhumunai* and *singuvai* pathways

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

Step 1: The teacher will give a brief lecture to the students on the concepts of *suzhumunai* and *singuvai* as energy channels within the human body and explain how *varma thoondal* and *thadaval* can be used to stimulate and balance these pathways. (1 hours)

Activity 2: Demonstration (1hr 30 mins)

Step 1: The teacher will demonstrate the physical techniques of *varma thoondal*, applying gentle tapping, rubbing, or pressure on key points that run along the pathways of *Suzhumunai and singuvai*.(30 minutes)

Step 2: The teacher guides the students to focus on how to stimulate the channels without causing harm or discomfort. (30 minutes)

Step 3: Teach students how to diagnose energy imbalances along the pathways of *Suzhumunai and singuvai* by observing physical symptoms and mental states .(30 minutes)

Activity 3: Discussion (1 hr 30 min)

Step 1: The teacher will engage students in group discussions about the importance of balancing these channels for maintaining overall health and how blockages in these pathways can lead to illness. (1 hour)

Step 2: The teacher assesses the students based on their log book for the plan of appropriate treatment protocol with *varma thoondal* and *thadaval* techniques. (30 minutes)

Practical Training 4.3 : *Varma thadaval* along the pathway of *purudan, kandhari* and *athi naadi*

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

Step 1: The teacher will introduce the students to the concepts of *Purudan, kandhari* and *athi naadi* as energy channels within the human body and explain how *varma thoondal* and *Thadaval* can be used to stimulate and balance these pathways. (1 hour)

Activity 2: Demonstration (1hr 30 mins)

Step 1: The teacher will show the physical techniques of *varma thoondal*, applying gentle tapping, rubbing, or pressure on key points that run along the pathways of *Purudan, kandhari* and *athi naadi*.(1 hour)

Step 2: The teacher will demonstrate to the students how to diagnose energy imbalances along the pathways of *Purudan, kandhari and athi naadi* by observing physical symptoms and mental states .(30 minutes)

Activity 3: Discussion (1 hr 30 min)

Step 1: The teacher will engage students in group discussions about the importance of balancing these channels for maintaining overall health and how blockages in these pathways can lead to illness. (1 hour)

Step 2: The teacher will assess the students based on the following criteria (30 min)

1) Description about *purudan, kandhari* and *athi naadi*

2)Focus on how to stimulate the channels without causing harm or discomfort.(30 minutes)Students should then plan the appropriate treatment protocol with *Varma Thoondal* and *Thadaval* techniques. (30 minutes)

Practical Training 4.4 : *Varma thadaval* along the pathway of *alampurudan, sangini* and *kugu*

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

Step 1: The teacher will give a brief lecture to the students on the concepts of *alampurudan*, *sangini* and *kugu naadi* as energy channels within the human body and explain how *varma thoondal* and *thadaval* can be used to stimulate and balance these pathways. (1 hour)

Activity 2: Demonstration (1hr 30 mins)

Step 1: The teacher will show the physical techniques of *varma thoondal*, applying gentle tapping, rubbing, or pressure on key points that run along the pathways of *alampurudan*, *sangini* and *kugu naadi*. (students will focus on how to stimulate the channels without causing harm or discomfort) (1 hour)

Step 2: The teacher will demonstrate how to diagnose energy imbalances along the pathways of *alampurudan*, *sangini* and *kugu naadi* by observing physical symptoms and mental states (30 minutes).

Activity 3: Discussion (1 hr 30 min)

Step 1: The teacher will engage students in group discussions about the importance of balancing these channels for maintaining overall health and how blockages in these pathways can lead to illness. (1 hour)

Step 2: The teacher will assess the students, based on the explanation, to make a plan of the appropriate treatment protocol with *varma thoondal* and *thadaval* techniques. (30 minutes)

Practical Training 4.5 : Varma thadaval along the pathway of visothirai and paisini

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

The teacher will introduce the students to the concepts of *visothirai* and *paisini naadi* as energy channels within the human body and explain how *varma thoondal* and *thadaval* can be used to stimulate and balance these pathways.

Activity 2: Demonstration (1 hr 30 min)

Step 1: The teacher will show the physical techniques of *varma thoondal*, applying gentle tapping, rubbing, or pressure on key points that run along the pathways of *visothirai* and *paisini naadi*. (Students will focus on how to stimulate the channels without causing harm or discomfort.) (1 hour)

Step 2: The teacher will demonstrate how to diagnose energy imbalances along the pathways of *visothirai* and *paisini naadi* by observing physical symptoms and mental states (30 minutes).

Activity 3: Discussion (1 hr 30 mins)

Step 1: The teacher will engage students in group discussions about the importance of balancing these channels for maintaining overall health and how blockages in these pathways can lead to illness. (1 hour)

Step 2: The teacher will assess the students, based on the explanation, to make a plan of the appropriate treatment protocol with *varma thoondal* and *thadaval* techniques. (30 minutes)

Experiential learning Activity

Experiential-Learning 4.1 : Proficiency in performing *varma thadaval* for *idakalai* and *pingalai naadi*

Total activity:- 6 hrs

Activity 1: Self-directed learning (2 hours)

Step 1: Students will draw the energy pathways (*Idakalai and pingalai*) on a body diagram, explaining their relationship to *varmam* points and their influence on health and well-being. (2 hours)

Activity 2: Real-Life Experience (2 hours)

Step 1: Students will practice *varma thoondal* techniques on each other, focusing on specific points along the *Idakalai* and *pingalai*. (1 hour)

Step 2: After practising the techniques, students will observe their energy changes (1 hour)

Activity 3: Case-Based Learning (2 hours)

Step 1: Students will work with different types of patients, focusing on how they can use *varma thoondal* and *thadaval* to either stimulate or calm the energy along these channels. (1 hour)

Step 2: Students should adjust their techniques based on whether the energy is blocked or overactive. (1 hour)

Experiential-Learning 4.2 : *Varma thadaval* for *suzhumunai* and *singuvai*

Total activity:- 5 hrs

Activity 1: Self-directed learning (2 hours)

Step 1: The students will draw the energy pathways (*Suzhumunai and singuvai*) on a body diagram, explaining their relationship to *varmam* points and their influence on health and well-being. (1 hour)

Step 2: The students will practice *varma thoondal* techniques on each other, focusing on specific points along the *Suzhumunai and singuvai*. After practicing the techniques, students will observe their energy changes & note the findings in their long book (2 hours)

Activity 2: Case-Based Learning (2 hours)

The students will work with different types of patients, focusing on how they can use *Varma thoondal* and *thadaval* to either stimulate or calm the energy along these channels. (Students should adjust their techniques based on whether the energy is blocked or overactive) (2 hours)

Experiential-Learning 4.3 : *Varmam thadaval* for *purudan*, *kandhari* and *athi naadi*

Total activity:- 5 hrs

Activity 1: Self-directed learning (3 hours)

Step 1: The student will draw the energy pathways (*purudan, kandhari and athi*) on a body diagram, explaining their relationship to *varmam* points and their influence on health and well-being through PPT (1 hours)

Step 2: The student will practice *varma thoondal* techniques on each other, focusing on specific points along the *Purudan, kandhari and athi* (1 hour)

Step 3: The student will observe their energy changes and note in their logbook (1 hour)

Activity 2: Case-Based Learning (2 hours)

Step 1: The student will document the case report on different types of patients, focusing on how they can use *varma thoondal* and *thadaval* to either stimulate or calm the energy along these channels (1 hour)

Step 2: The student should make the treatment plan on *varmam thadaval* techniques based on whether the energy is blocked or overactive (1 hour)

Experiential-Learning 4.4 : Varma thadaval for alampurudan, sangini and kugu naadi

Total activity:- 5 hrs

Activity 1: Self-directed learning (3 hours)

Step 1: The students will draw the energy pathways (*alampurudan, sangini and kugu*) on a body diagram, explaining their relationship to *varmam* points and their influence on health and well-being. (1 hour)

Step 2: The students will practice *varma thoondal* techniques on each other, focusing on specific points along the *alampurudan, sangini and kugu*. (1 hour)

Step 3: The student will observe their energy changes and note in their logbook (1 hour)

Activity 2: Case-Based Learning (2 hours)

Step 1: The student will document the case report on different types of patients, focusing on how they can use *varma thoondal* and *thadaval* to either stimulate or calm the energy along these channels (1 hour)

Step 2: The student should make the treatment plan on *varmam thadaval* techniques based on whether the energy is blocked or overactive (1 hour)

Experiential-Learning 4.5 : Varma thadaval for visothirai and paisini naadi

Total activity:- 5 hrs

Activity 1: Self-directed learning (3 hours)

Step 1: The students will draw the energy pathways (*visothirai and paisini*) on a body diagram, explaining their relationship to *varmam* points and their influence on health and well-being. (1 hour)

Step 2: The students will practice *varma thoondal* techniques on each other, focusing on specific points along the *visothirai and paisini* (1 hour)

Step 3: The student will observe their energy changes and note in their logbook (1 hour)

Activity 2: Case-Based Learning (2 hours)

The student will document the case report on different types of patients, focusing on how they can use *varma thoondal* and *thadaval* to either stimulate or calm the energy along these channels (1 hour)

The student should make the treatment plan on *varmam thadaval* techniques based on whether the energy is blocked or overactive (1 hour)

Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C Assess basic knowledge about the subject 50 marks Marking energy pathway on body diagrams (10 marks) Group discussion and interactive sessions on naadi (10 marks) Assessment through practical sessions (20 marks) Structured SAQ (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 5 : Varmam thoondum muraigal (manipulation methods)

Module Learning Objectives

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

Describe the difference between *varma maathirai* and *irai*

Explain the therapeutic efficacy of various *varmam muthirai* and the usage of *muthirai* for specific regions.

Demonstrate the various *varmam* induction methods based on materials

Explain and practice varmam thiravukol

Unit 1 Varma maathirai and irai

5.1.1. *Varma maathirai* and *irai*

5.1.2. The techniques of *varma maathirai* and *irai*

5.1.3. Documentation of *varma maathirai* from various *varmam* traditional practitioners

References: 1,3,4,5,10,11,19,22,41,45,51,59,63,67,93,99

3A	3B	3C	3D	3E	3F	3G
CO1,CO4	Define <i>varmam maathirai</i> and <i>irai</i>	1	Lecture	CK	Knows-how	L&PPT
CO1,CO4	Document varmam maathirai from various varmam traditional practitioners	3	Experiential-Learning 5.1	PSY-ADT	Does	RLE,FV,EDU
CO1,CO4	Analyse the techniques of <i>varmam maathirai</i> and <i>irai</i>	2	Practical Training 5.1	PSY-GUD	Shows-how	D,PAL,B S

Unit 2 Types and therapeutic efficacy of Varma muthirai

5.2.1. *Varma muthirai* and its importance

5.2.2. The types and therapeutic efficacy of *varma muthirai*, application of *varma muthirai* for various conditions

5.2.3. Application of *varma muthirai* in various therapeutic aspects

References: 1,3,4,5,10,17,24,29,30,31,33,45,59,64

3A	3B	3C	3D	3E	3F	3G
CO1,CO4	Describe <i>varma muthirai</i> and its importance	1	Lecture	CK	Knows-how	L&PPT
CO1,CO4	Distinguish the types, application and therapeutic efficacy of <i>varma muthirai</i>	2	Practical Training 5.2	PSY-ADT	Shows-how	DIS,BS,BL
CO1,CO4	Apply <i>varma muthirai</i> in various therapeutic aspects	2	Experiential-Learning 5.2	PSY-GUD	Does	DIS,PER

Unit 3 Varmam muthirai used in head and neck, abdomen and thorax and limbs

5.3.1. The *varma muthirai* used in the head, neck, abdomen, thorax and limbs.

5.3.2. The techniques of *varma muthirai*

5.3.3. Application of *varma muthirai* used in head , neck, abdomen, thorax and limbs

References: 3,24,31

3A	3B	3C	3D	3E	3F	3G
CO1,CO4	Describe <i>varma muthirai</i> used in head, neck, abdomen, thorax and limbs.	2	Lecture	CK	Knows-how	L&PPT ,L

CO1,CO4	Demonstrate the techniques of <i>varma muthirai</i>	4	Practical Training 5.3	PSY-ADT	Shows-how	BS,D
CO1,CO4	Apply varmam muthirai used in head, neck, abdomen, thorax and limbs	6	Experiential-Learning 5.3	PSY-ADT	Does	SIM,DIS,D

Unit 4 Varma thiravukol

- 5.4.1. Explanation of *varma thiravukol*
- 5.4.2. Demonstration of *varma thiravukol*
- 5.4.3. Documentation of *varma thiravukol*

References: 1,3,4,10,16,17,20,25,26,27,30,35,38,48,49,99

3A	3B	3C	3D	3E	3F	3G
CO4	Describe <i>varmam thiravukol</i> .	1	Lecture	CK	Knows-how	L&PPT ,I BL,L,L_V C
CO4	Demonstrate <i>varma thiravukol</i>	2	Practical Training 5.4	PSY-GUD	Knows-how	D,BS
CO1,CO4	Document the stages in <i>thiravukol</i>	2	Experiential-Learning 5.4	PSY-ADT	Does	SDL

Practical Training Activity

Practical Training 5.1 : The techniques of *varmam maathirai* and *irai*

Total activity:- 2 hours

Activity 1: Brainstorming (30 min)

The teacher will give a brief lecture on the theoretical foundation of *varmam maathirai* and *irai*, their relationship to the body's nervous system, and how these techniques are

used to balance the flow of pranan through PPT

Activity 2: Demonstration (30 min)

The teacher will perform a live demonstration of *varma maathirai*, focusing on different gestures such as tapping, pressing, and stroking along key energy channels.

Activity 3: Peer-assisted Learning (1 hour)

Step 1:The teacher organises a peer review session where students observe each other's techniques (30 min)

Step 2: The teacher assesses the student based on their logbook, Q & A session (30 min)

Practical Training 5.2 : Therapeutic methods of *varma muthirai*

Total activity:- 2 hrs

Activity 1: Brainstorming (1 hour)

The teacher will give a brief lecture on the theory of *varma muthirai*, explaining its origin and importance in the *varma* system. Discuss the connection between energy manipulation and the marks or imprints created during treatment through ppt (1 hour)

Activity 2: Blended Learning(1 hour)

Step 1: The teacher will show images or videos of the muthirai marks and gestures made on patients' bodies & explain how these marks correspond to energy channels. (45 minutes)

Step 2: The teacher will assess the student based on the following criteria (15 min)

1. Explain about energy channel
2. Express suitable *muthirai* for various regions of the body
3. Methods of administration of *varmam muthirai* based on the therapeutic aspect

Practical Training 5.3 : The unique techniques of *varmam muthirai*

Total activity:- 4 hrs

Activity 1: Brainstorming (2 hours)

The Teacher will give a brief on the specific therapeutic effects of *varma muthirai* concerning pain management, energy balance and different therapeutic purposes for each type of *muthirai* (2 hours)

Activity 2: Demonstration (2 hours)

Step 1: The teacher demonstrates the hand pressure, gestural accuracy, and overall therapeutic effectiveness. (1 hour)

Step 2: The teacher will evaluate students on their ability to apply *varma muthirai* techniques on patients or peers. (1 hour)

Practical Training 5.4 : *Varma thiravukol* techniques

Total activity:- 2 hrs
 Activity 1: Brainstorming (1 hour)
 The teacher will give a brief lecture about the definition, the role of *varma thiravukol* in stimulating the flow of pranan and restoring energy balance, highlighting that blocked energy can lead to physical and emotional disturbances through PPT
 Activity 2: Demonstration (1 hour)
 Step 1: The teacher will perform a live demonstration on a volunteer or mannequin to show the application of *varma thiravukol* on specific varma points. (30 minutes)
 Step 2: The students will observe the techniques of *varma thiravukol* and note their logbook (30 minutes)

Experiential learning Activity

Experiential-Learning 5.1 : Enlisted techniques of *varmam maathirai* and *irai*

Total activity:- 3 hrs
 Activity 1: Field visit (2 hours)
 Step 1: Students will engage with experienced practitioners through structured interviews and observations to capture their techniques(30 minutes).
 Step 2: Students will ask practitioners to demonstrate and explain the nuances of their *varma maathirai* methods. (30 minutes)
 Step 3: Students will take detailed field notes during interactions with practitioners, ensuring they document every step of the *maathirai* technique, including movements, pressure, rhythm, and responses. (1 hour)
 Activity 2: Edutainment(30 min)
 The students will create visual charts or diagrams comparing techniques.
 Activity 3: Real-Life Experience (30 min)
 The students should map out common pressure points, movements, and rhythms in a table or flowchart.

Experiential-Learning 5.2 : *Varma muthirai* in various therapeutic aspects

Total activity:- 2 hrs
 Activity 1: Presentations (1 hour)
 The student will present the documented clinical report of applying different types of *varmam muthirai*
 Activity 2: Discussions (1 hour)
 The student has a discussion with his/her colleagues about the pranan energy channels for administrated *varmam muthirai* (45 min)
 Step 3: The student concluded their logbook (15 min)

Experiential-Learning 5.3 : Varmam muthirai for head and neck, abdomen, thorax and limbs

Total activity:- 6 hrs Activity 1: Demonstration The students will demonstrate the concept of varma muthirai, its importance in varmam therapy, and its uses across various parts of the body. (2 hours) Activity 2: Simulation The Students will apply muthirai on the head, neck, abdomen, thorax and limbs to relieve pain, improve circulation, and balance energy. (2 hours) Activity 3: Discussion The students will create a treatment plan for a specific patient, detailing which varmam muthirai techniques should be applied for various conditions (2 hours)	
Experiential-Learning 5.4 : The techniques of <i>thiravukol</i>	
Total activity:- 2 hrs Activity 1: Self-directed learning (2 hours) Step 1: The students will practice performing <i>varmam thiravukol</i> on their peers under the guidance of the instructor. (30 minutes) Step 2: The student should focus on developing correct techniques and confidence in using pressure points. (30 minutes) Step 3: The student will work in pairs, taking turns to practice applying <i>varma thiravukol</i> to <i>varma</i> points on the head, neck, thorax, abdomen and limbs. (30 minutes) Step 4: After practising, students exchange feedback with each other regarding the comfort and effectiveness of the pressure applied. This helps refine their technique. (30 minutes)	
Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be 25 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C Assess basic knowledge about the subject 25 marks Preparation of posters (5 marks) Preparing visual charts and diagrams (5 marks) Field visits (10 marks) Structured SAQ (5 marks) Or Any practical in converted form can be taken for assessment (10 marks) and Any of the experiential as portfolio/reflections/presentations, can be taken as an assessment (15 marks)	2

Module 6 : Varmam kalari & ethnovarmam practices

Module Learning Objectives

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

- Describe the techniques of *kalari* and *silambattam* and their importance
- Identify the therapeutic importance of *kalari* and the usage of *kalari* in day-to-day life care
- Traverse the ethno-varmam practices
- Document the traditional bone setting practices

Unit 1 Kalari – Definition, Types, therapeutic importance and its role in day to day life

- 6.1.1. *Kalari* with its types, importance and usage of *kalari* in day-to-day life
- 6.1.2. The various techniques of *kalari*
- 6.1.3. *Kalari* demonstration for simple conditions without weapons.

References: 4,32,61,65

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Define <i>kalari</i> with its types, importance and usage of <i>kalari</i> in day to day life	2	Lecture	CK	Know	L,L&PPT
CO1,CO3,CO6	Analyse the techniques of <i>Kalari</i> and perform <i>kalari</i> for simple conditions	4	Practical Training 6.1	PSY-ORG	Shows-how	D-M,DIS,BS
CO1,CO3,CO6	Demonstrate <i>Kalari</i>	6	Experiential-Learning 6.1	PSY-SET	Does	SY,RLE,RP

Unit 2 Silambam in varmam kalari – Role and importance

- 6.2.1. *Silambam* with its types and importance
 6.2.2. The techniques of *silambam*
 6.2.3. Demonstration of *silambam* in various health conditions

References: 61,65,66

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Describe the basics of <i>silambam</i> with its types and importance	2	Lecture	CC	Know	L,L&PPT
CO1,CO3,CO6	Analyse the techniques of <i>silambam</i>	4	Practical Training 6.2	PSY-ADT	Shows-how	D,DIS,RLE
CO1,CO3,CO6	Demonstrate <i>silambam</i>	5	Experiential-Learning 6.2	PSY-GUD	Does	SDL,RLE

Unit 3 Ethno varmam practices for various diseases

- 6.3.1. The basic *varma* points followed in folklore for various diseases
 6.3.2. Observation on the manipulation methods followed by folklore practitioners
 6.3.3. Documentation of traditional *varmam* manipulation followed in traditional *varma* hospitals and in *varma* OPD/IPD

References: 56,61,64,66,67

3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Describe the basic <i>varmam</i> points followed folklerly	2	Lecture	CK	Knows-how	PL
CO1,CO3,CO6	Observe the manipulation methods followed by various <i>varmam</i> practitioners and folklore practitioners	4	Practical Training 6.3	PSY-GUD	Shows-how	DIS,CBL

CO1,CO3,CO6	Document traditional <i>varmam</i> manipulation methods	5	Experiential-Learning 6.3	PSY-MEC	Does	CBL,PL,DIS,FV
Unit 4 varmam practices for traditional bone setting 6.4.1. Ethno- <i>varmam</i> practices, including bone setting practices. 6.4.2. Observation of ethno- <i>varmam</i> practices by various <i>varmam</i> practitioners 6.4.3. Documentation of Ethno <i>varmam</i> practices and traditional bone setting techniques References: 1,3,4,12,21,49,56,61,63,66						
3A	3B	3C	3D	3E	3F	3G
CO1,CO3,CO6	Describe ethno <i>varmam</i> practices including bone setting practices.	2	Lecture	CK	Knows-how	L,L&PPT
CO1,CO3,CO6	Observe the ethno <i>varmam</i> practices followed by folklore practitioners	4	Practical Training 6.4	PSY-GUD	Shows-how	D,DIS,BS,BL
CO1,CO3,CO6	Document ethno <i>varmam</i> practices and traditional bone setting techniques	5	Experiential-Learning 6.4	PSY-GUD	Does	SDL,DIS,FV,RLE
Unit 5 Mani, Manthiram 6.5.1. The basics of <i>mani</i> , <i>manthiram</i> 6.5.2. Observation on <i>mani</i> , <i>manthiram</i> , followed by folklore practitioners 6.5.3. Documentation of <i>mani</i> , <i>manthiram</i> References: 1,3,4,10,61						
3A	3B	3C	3D	3E	3F	3G

CO1,CO3,CO6	Describe the basics of <i>mani, manthiram</i>	2	Lecture	CK	Know	L&PPT ,L
CO1,CO3,CO6	Observe <i>mani, manthiram</i> followed by folklore practitioners and in <i>varmam</i> OPD/IPD	4	Practical Training 6.5	PSY-GUD	Shows-how	BL,BS,DIS,D
CO1,CO3,CO6	Document <i>mani, manthiram</i> followed in Varma OPD/IPD and by traditional <i>varmam</i> practitioners.	5	Experiential-Learning 6.5	PSY-MEC	Does	FV,CBL, SIM

Practical Training Activity

Practical Training 6.1 : *Varmam kalari* techniques

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

The teacher will give a brief lecture on the origin of *kalari*, its connection to *varmam*, and how it has evolved into a system of both martial arts and physical therapy.

Activity 2: Demonstration (3 hours)

Step 1:The teacher will show video clips or diagrams demonstrating the basic movements in *kalari*. (1 hour)

Step 2: The teacher will demonstrate each basic posture (*Kuttam, Meelam, Thiruvadi*) to ensure students understand the foundational positions that will be applied therapeutically. (1 hour)

Step 3: The teacher emphasises alignment, body balance, and proper muscle engagement during each stance. (40 min)

Step 5: The teacher assesses the student based on the debate by following the criteria (20 min)

1. Time management

2. Collection of points

3. Speech delivery

Practical Training 6.2 : The techniques of *silambam*

Total activity:-4 hrs

Activity 1: Brainstorming (2 hours)

The teacher will give a brief lecture on the history, philosophy, and basic principles of *silambam*, setting the foundation for learning the techniques and emphasising the importance of discipline, respect in learning martial arts.

Activity 2: Demonstration (2 hours)

Step 1:The teacher will demonstrate a basic *silambam* performance (with the stick) to highlight the fluidity and precision of the movements. (1 hour)

Step 2: The teacher will demonstrate basic footwork through simple drills, such as moving forward, backwards, and sidestepping. Focus on coordination between foot and stick

movement. (1 hour)

Practical Training 6.3 : Enlist the manipulation methods of various *varmam* from folklore practitioners

Total activity:- 4 hrs

Activity 1: Case-Based Learning (2 hours)

Step 1: The teacher will invite an experienced *varmam* practitioner or folklore healer to provide an overview of their work and experiences. (1 hour)

Step 2: The teacher will explain the healing properties of herbs used in internal and external treatments. (1 hour)

Activity 2: Real-Life Experience (1 hour)

The teacher will organise a session where students learn to make herbal remedies, such as herbal oils, decoctions, or ointments. (1 hour)

Activity 3: Discussion (1 hour)

The teacher will discuss the role of folklore healers in society and their approach to healing, such as using internal and external medications. (1 hour)

Practical Training 6.4 : Ethno *varmam* practices and bone setting techniques

Total activity:- 4 hrs

Activity 1: Demonstration (1 hour)

The teacher will demonstrate an overview of the types of manipulation techniques commonly used by folklore healers, such as spinal manipulation, muscle stretching, and joint adjustments.

Activity 2: Blended (1 hour)

The teacher will show videos or clips of bandage techniques being performed by folklore practitioners.

Activity 3: Discussions (2 hours)

Step 1: The teacher will organise a group discussion where students share their observations, discussing differences in approaches, techniques, and patient responses. Encourage students to share any surprising findings or insights. (1 hour)

Step 2: The teacher will encourage students to maintain a logbook during the observation process, where they can note personal reflections, questions, and insights. (1 hour)

Practical Training 6.5 : Exploration of *mani*, *manthiram* practiced by folklore practitioners

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

The teacher will provide an in-depth explanation of how *mani* and *manthiram* are used in the context of *varma* therapy, focusing on their physiological, energetic, and spiritual aspects.

Activity 2: Blended Learning (1 hour)

The teacher will show videos of *varma* practitioners using *mani* and *manthiram* in actual OPD/IPD settings.

Activity 3: Demonstrate (2 hours)

Step 1: The teacher will demonstrate how *manthiram* is recited to enhance the healing process and teach students to chant *manthiram* correctly.(30 minutes)

Step 2: The teacher will demonstrate how to focus on the rhythm, tone, and timing of the chants to synchronise with the pressure application. (30 minutes)

Step 3: The teacher will be evaluated on the student's ability to document and demonstrate the correct use of *mani* and *manthiram* in a clinical setting by following the criteria. (1 hr)

1. Communication skills

2. Ability to adapt treatment based on patient feedback,

3. Overall understanding of the healing process

Experiential learning Activity

Experiential-Learning 6.1 : *Kalari* for simple health conditions

Total activity:- 6 hrs

Activity 1: Real-Life Experience (2 hours)

Step 1: The students will come up with a treatment plan for a given condition using *Kalari* techniques. (1 hour)

Step 2: They should include specific postures, breathing exercises, and gentle strikes that could help alleviate the condition. (1 hour)

Activity 2: Presentations(1 hour)

The students present their plans and perform a mock treatment on a classmate.

Activity 3: Roleplays (3 hour)

Step 1: Organise role-play scenarios where one student acts as the patient, and the other performs *kalari* treatments for specific conditions. (1 hour)

Step 2: Emphasise the importance of patient communication to ensure comfort during treatment.(2 hours)

Experiential-Learning 6.2 : Techniques of *silambam*

Total activity:- 5 hrs

Activity 1: Self-directed Learning (2 hours)

Step 1:The students will practice these strikes and blocks with a partner, focusing on timing, distance, and accuracy. (1 hour)

Step 2: One student attacks with a basic strike, while the other defends using the appropriate blocking or parrying technique. (1 hour)

Activity 2: Real-Life Experience (3 hours)

Step 3: The students will perform light sparring sessions where students practice real-time reactions, focusing on timing, distance control, and stick handling. (1 hour)

Step 4:The students will demonstrate their proficiency in *silambam* techniques, including a brief sparring session and footwork drills. (2 hours)

Experiential-Learning 6.3 : Traditional *varmam* manipulation techniques practiced by traditional *varmam* practitioners and documented.

Total activity:- 5 hrs

Activity 1: Field visit (2 hours)

The students will visit active *varmam* practitioners or folk healers to observe their work in real-life settings and document the *varmam* manipulation methods.

Activity 2: Case-Based Learning (2 hours)

The students will create case studies where students must diagnose a simulated injury and provide a treatment plan.

Activity 3: Discussion(1 hour)

Step 3: Engage students in a group discussion about the importance of preserving traditional healing knowledge and how it can be applied in modern contexts.

Experiential-Learning 6.4 : Ethno *varmam* practices and traditional bone setting techniques

Total activity:- 5 hrs

Activity 1: Field visit (3 hours)

Step 1: The students will visit experienced folklore practitioners or observe live demonstrations of manipulation techniques. (2 hours)

Step 2: The students will document their observations in the form of ethnographic notes, including specific details such as the technique, duration, patient feedback, and environment (1 hour)

Activity 2: Real-Life Experience (2 hours)

Step 1: The students will practice the manipulation techniques on mannequins or fellow students to demonstrate their understanding of the technique. (1 hour)

Step 2: The student provides feedback on their documentation and practical skills, followed by a group reflection on what was learned and the challenges faced during observation and practice. (1 hour)

Experiential-Learning 6.5 : Enlisted *mani* and *manthiram* techniques practiced by traditional *varmam* practitioners

Total activity:-5 hrs

Activity 1: Field Visit (2 hours)

The students will observe how practitioners interact with patients and how *Manthiram* is used in conjunction with physical therapy, and document the patient's responses to treatment, particularly noting changes in pain levels, mobility, or overall well-being.

Activity 2: Simulation (1 hour)

The students will perform the *mani* and *manthiram* techniques in a simulated clinical scenario, where they can practice with patients.

Activity 3: Case-Based Learning (2 hours)

Step 1:The students will create case studies based on their observed patients, which should include methodology, findings, and patient outcomes.

Step 2: Students will track patients' progress over multiple sessions, noting any improvements in their symptoms or physical condition.

Step 3: After completing a treatment cycle, students conduct follow-up assessments to evaluate the efficacy of the techniques.

Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C Assess basic knowledge about the subject 50 marks. Case study presentation(Minimum 2 cases) (10 marks) Field visit and taking ethnographic notes (10 marks) Participation in group discussion on ethno varmam practises (10 marks) Performing basic <i>Silambam</i> and <i>kalari</i> techniques (10 marks) Participation in Role plays (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 : Basics of applied neurology & neuro diagnostic techniques

Module Learning Objectives

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

- Describe the functional neuroanatomy and neurophysiology
- Examine the sensory nervous system, motor nervous system, reflexes and Cranial nerves
- Describes the basics of neuroimaging
- Interprete of the importance of CT, MRI and other neuroimaging techniques in neurologic disorders

Unit 1 Overview of functional neuroanatomy and neurophysiology

- 7.1.1. The Central, peripheral, and autonomic nervous system, Physiology of nerve conduction, Motor & sensory tracts, sensory receptors
- 7.1.2. Dissection of Brain and Spinal cord, explain using specimen, 3D models
- 7.1.3. Virtual dissection of brain and spinal cord

References: 68,69,70

3A	3B	3C	3D	3E	3F	3G
CO6	Describe the Central, peripheral, autonomic nervous system, Physiology of nerve conduction, Motor & sensory tracts, sensory receptors	2	Lecture	CK	Knows-how	L&PPT ,L
CO6	Perform the dissection of Brain and Spinal cord and explain using specimen, 3D models	4	Practical Training 7.1	PSY-ORG	Shows-how	BS
CO6	Perform Virtual dissection of brain and spinal cord	5	Experiential-Learning 7.1	PSY-GUD	Does	SDL,BL, DIS

Unit 2 Examination of sensory nervous system, motor nervous system, reflexes and cranial nerves

7.2.1. The Sensory nervous system, the motor nervous system, and cranial nerves

7.2.2. Examination of the sensory nervous system, Motor nervous system, and cranial nerves.

7.2.3. Demonstrate proficiency in examining the sensory nervous system, the motor nervous system, and the cranial nerves.

References: 71,72

3A	3B	3C	3D	3E	3F	3G
CO6	Describe the Sensory nervous system, Motor nervous system and cranial nerves	2	Lecture	CK	Knows-how	L,L&PPT
CO6	Perform the examination of sensory nervous system, Motor nervous system and cranial nerves.	4	Practical Training 7.2	PSY-GUD	Shows-how	D,BS
CO6	Demonstrate the examination of sensory nervous system, Motor nervous system, cranial nerves.	6	Experiential-Learning 7.2	PSY-ADT	Does	SDL,D,PER

Unit 3 Basics of neuro imaging

7.3.1. The basics of neuroimaging techniques

7.3.2. Clinical teaching with case discussions in OPD/IPD

7.3.3. Demonstrate proficiency in evaluating the basics of neuroimaging

References: 73

3A	3B	3C	3D	3E	3F	3G
CO6	Describe the basics of neuro imaging techniques	2	Lecture	CK	Knows-how	L,L&PPT

CO6	Evaluate the basics of neuro imaging techniques	4	Practical Training 7.3	PSY-GUD	Shows-how	TBL,BS,CBL
CO6	Demonstrate proficiency in evaluating basics of neuro imaging	5	Experiential-Learning 7.3	PSY-ADT	Does	SY,TBL,PER

Unit 4 Importance of CT, MRI and other neuro imaging technique in neurologic diseases

7.4.1. The basics of CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) in neurologic diseases

7.4.2. Clinical teaching in daily case discussions in OPD/IPD, teaching programmes in other hospitals with CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) imaging technique

7.4.3. Demonstrate proficiency in evaluating CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) imaging technique

References: 73

3A	3B	3C	3D	3E	3F	3G
CO6	Describe on the basics of CT, MRI and other imaging technique (PET, NIRS, MEG, fMRI) imaging in neurologic diseases	2	Lecture	CK	Knows-how	L,L&PPT
CO6	Discuss the importance of CT, MRI and other imaging technique (PET, NIRS, MEG, fMRI)	4	Practical Training 7.4	PSY-ADT	Shows-how	D,BS,CBL
CO6	Demonstrate proficiency in evaluating CT, MRI and other imaging technique (PET, NIRS, MEG, fMRI)	5	Experiential-Learning 7.4	PSY-GUD	Shows-how	TBL,PER

Unit 5 Electro diagnostic Studies of Neurologic Disorders: EEG and EMG

7.5.1. The basics in evaluating EEG ,EMG and NCS

7.5.2. Clinical teaching in daily case discussions in OPD/IPD, and teaching programmes in other hospitals with diagnostic techniques like EEG and EMG.

7.5.3. Demonstrate proficiency in evaluating EEG and EMG

References: 69,74

3A	3B	3C	3D	3E	3F	3G
CO6	Discuss the basics in evaluating EEG and EMG	2	Lecture	CK	Knows-how	L&PPT ,L
CO6	Demonstrate diagnostic importance of EEG and EMG.	4	Practical Training 7.5	PSY-GUD	Shows-how	D,BS
CO6	Demonstrate proficiency in evaluating EEG and EMG	5	Experiential-Learning 7.5	PSY-GUD	Shows-how	SDL

Practical Training Activity

Practical Training 7.1 : Dissection of the brain and spinal cord by using specimens, 3D models

Total activity:- 4 hrs

Activity 1: Brainstorming (1hr 30 min)

The teacher will make a brief lecture to the students on the basic anatomy of the brain and spinal cord by use detailed diagrams and 3D digital models of the central nervous system (CNS) to show the key structures that will be explored

Activity 2: Dissection (2hr 30 min)

Step 1:The teacher will use a preserved brain specimen for hands-on dissection to teach how to safely dissect the brain, identifying different parts of the central nervous system. (1 hour)

Step 2: The teacher will use a preserved spinal cord specimen and teach students how to dissect and identify the structures of the spinal cord, including the gray and white matter and nerve roots. (1 hour)

Step 3: The teacher will assess the student by following the criteria (30 min)

1) Identification

2) Explain the functions

3) Applied anatomy

4) Illustrate the finding in CT/MRI

5) Management

Practical Training 7.2 : Examination of sensory nervous system, motor nervous system and cranial nerves.

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

Step 1: The teacher will give a brief lecture on the structure and function of the sensory nervous system, motor nervous system and cranial nerves.(30 minutes)

Step 2: The teacher will give a brief lecture on the role of these systems in everyday activities and their importance in diagnosing neurological conditions. (30 minutes)

Activity 2: Demonstration (3 hours)

Step 1:The teacher will demonstrate the students to assess the integrity of the sensory nervous system, including pain, temperature, light touch, vibration, proprioception, and discriminative sensations and perform sensory examinations and how to assess muscle strength using the Medical Research Council (MRC) scale (0-5) for major muscle groups and perform motor examinations (1 hour 40 min)

Step 2: The teacher will teach students to assess the 12 cranial nerves, which provide important diagnostic information about the brainstem and CNS and perform cranial nerve examinations. (50 min)

Step 3: The teacher will assess the students by their logbook (30 min)

Practical Training 7.3 : Radiological finding evaluation of the basics of neuroimaging techniques

Total activity:- 4 hrs

Activity 1: Brainstorming (1 hour)

The teacher will make a brief lecture on the general overview of neuroimaging, explaining its importance in diagnosing neurological conditions.

Activity 2: Case-Based Learning (1 hour)

The teacher will provide case-based learning where students must interpret imaging results in light of a clinical history.

Activity 3: Team-Based Learning (2 hours)

Step 1: The teacher will provide students with access to a neuroimaging database or imaging software to examine actual or simulated brain scans (CT, MRI, PET) (1 hour 30 min)

Step 2: The teacher will assess the students in online quizzes or apps to test students on the basic principles of neuroimaging, interpretation of images, and clinical applications. (30 min)

Practical Training 7.4 : CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) - Illustration

Total activity:-4 hrs

Activity 1: Brainstorming (1 hour)

The teacher will make a brief lecture on the general overview of neuroimaging, explaining its importance in diagnosing neurological conditions through PPT

Activity 2: Case-Based Learning(1 hour)

The teacher will provide case-based learning where students must interpret imaging results in light of a clinical history. (1 hour)

Activity 3: Demonstration (2 hours)

Step 1: The teacher will demonstrate to students with access to a neuroimaging database or imaging software to examine brain scans (CT, MRI, PET) (1 hour 30 min)
Step 2: The teacher will engage students in online quizzes or apps to test students on the basic principles of neuroimaging, interpretation of images, and clinical applications. (30min)

Practical Training 7.5 : Diagnostic importance of EEG and EMG.

Total activity :- 4 hrs

Activity 1: Brainstorming (2 hours)

Step 1: The teacher will explain the basics of EEG, which involves recording electrical activity in the brain through electrodes placed on the scalp and discuss the various uses of EEG in clinical practice. (1 hour)

Step 2: The teacher will explain how EMG measures the electrical activity of muscles at rest and during contraction, often used to diagnose muscle and nerve disorders and discuss when EMG is used. (1 hour)

Activity 2: Demonstration (2 hours)

Step 1: The teacher teaches students how to operate the EEG machine, monitor the patient during the test, and record the findings. (1 hour)

Step 2: The teacher will allow students to observe the differences in muscle activity on an EMG machine, comparing normal vs. abnormal results. (1 hour)

Experiential learning Activity

Experiential-Learning 7.1 : Virtual dissection of the brain and spinal cord

Total activity :- 5 hrs

Activity 1: Blended Learning (1 hour)

Step 1: The students will use interactive 3D anatomy software like Visible Body, Anatomage, or BioDigital Human. (30 minutes)

Step 2: These allow students to virtually explore different layers of the brain and spinal cord. (30 minutes)

Activity 2: Self-Directed Learning (3 hours)

Step 1: Students will have quizzes or practical tests where students must identify anatomical structures using 3D software. (1 hour)

Step 2: Students will use flashcards to test themselves on key terms and structures related to the nervous system's anatomy and physiology. (1 hour)

Step 3: Students will sketch and label diagrams of the brain and spinal cord after completing the dissection to assess their understanding. (1 hour)

Activity 3: Discussion (1 hour)

After the dissection, Students will have a group discussion where they share their observations, questions, and reflections on what they have learned and discuss common challenges faced during dissection.

Experiential-Learning 7.2 : Examination of the sensory nervous system, the motor nervous system, and cranial nerves.

Total activity:- 6 hrs

Activity 1: Demonstration (2 hours)

The students will explain and demonstrate their ability to perform the full neurological examination, including sensory, motor, and cranial nerve assessments on each other.

Activity 2: Presentations (2 hours)

The students will present cases where a specific cranial nerve is affected, and have students perform the relevant examination.

Activity 3: Self-Directed Learning (2 hours)

The students will have multiple-choice or short-answer questions testing knowledge of the sensory, motor, and cranial nerve pathways, as well as common abnormalities and their clinical significance.

Experiential-Learning 7.3 : Diagnosis based on neuro imaging

Total activity:- 5 hrs

Activity 1 : Presentation (2 hours)

The students will present clinical cases with different neuroimaging results (CT, MRI, and PET) and answer specific clinical questions and guide treatment decisions

Activity 2 : Team-Based Learning (2 hours)

The students will have small-group sessions where they have sets of neuroimaging cases to interpret and discuss normal anatomical landmarks, abnormalities such as tumors, infarcts, hemorrhages, or demyelinating plaques and the technique used (CT, MRI, or PET)

Activity 3 : Symposium (1 hour)

The students will use platforms like RadiAnt DICOM Viewer, OsiriX, or MRICron to view and interact with DICOM files (medical image formats). This will give them practical exposure to image manipulation (zooming, rotating, adjusting contrast).

Experiential-Learning 7.4 : CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) - Radiological finding diagnosis

Total activity:- 5 hrs

Activity 1: Presentation (2hrs 30 mins)

Step 1: The students will present clinical cases with different neuroimaging results (X-RAY, CT, MRI, and PET). Discuss how each modality is used to answer specific clinical questions and guide treatment decisions. (2 hours)

Step 2: The students will use platforms like RadiAnt DICOM Viewer, OsiriX, or MRICron to view and interact with DICOM files (medical image formats). (30 minutes)

Activity 2: Team-Based Learning (2hrs 30 mins)

Step 1: The students will have small-group sessions where they have sets of neuroimaging cases to interpret and discuss normal anatomical landmarks, abnormalities such as tumors, infarcts, hemorrhages, or demyelinating plaques and the technique used (CT, MRI, or PET) (2 hours)

Step 2: The student notes the findings in their logbook (30 minutes)

Experiential-Learning 7.5 : Diagnose based on clinical conditions with EEG and EMG		
Total activity:- 5 hrs Activity 1: Self-directed Learning (2 hours) Step 1: The students will have a practical exam where students must place electrodes, record EEG, and identify normal and abnormal patterns. (1 hour 30 min) Step 2: The students will have multiple-choice or short-answer questions that test students' theoretical understanding of EEG and EMG principles, applications and interpretations. (30 min) Activity 2 : Self-directed Learning (3 hours) The case-based questions that require students to interpret EEG or EMG results (2 hours)		
Modular Assessment		
Assessment method	Hour	
Conduct a structured modular assessment. Assessment will be for 50marks . 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 Assess basic knowledge about the subject 50 marks. Usage of 3D anatomy software (10 marks) Participation in Quiz and practical tests (10 marks) Usage of flash cards (10 marks) Dissecting specimens (10 marks) Case-based learning and interpretation of EEG and EMG (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 8 : Diseases of the Nervous system

Module Learning Objectives

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

Explain the pathophysiology and symptoms of seizure, epilepsy, cerebrovascular diseases, alzheimer's disease, parkinson's disease, motor neuron disease, trigeminal neuralgia, Bell's palsy, multiple sclerosis, Guillain-Barré syndrome

Describe the pathophysiology and symptoms of myasthenia gravis, muscular dystrophy, myositis, peripheral neuropathy, and chronic fatigue syndrome

Examine the various neurologic disorders

Unit 1 Seizures, epilepsy and Cerebro vascular diseases

8.1.1. The pathophysiology, symptoms and diagnosis of seizures, epilepsy and cerebrovascular diseases

8.1.2. Clinical Examination of seizures, epilepsy and cerebrovascular diseases

8.1.3. Demonstrate proficiency in evaluating seizures, epilepsy and cerebrovascular diseases

References: 77,78,101

3A	3B	3C	3D	3E	3F	3G
CO5	Elaborate the pathophysiology, symptoms, diagnosis of Seizures, Epilepsy and Cerebro vascular diseases	2	Lecture	CC	Knows-how	L,L&PPT
CO5	Perform Clinical Examination for Seizures, Epilepsy and Cerebro vascular diseases	4	Practical Training 8.1	PSY-GUD	Shows-how	D-BED,C BL,D
CO5	Demonstrate proficiency in evaluating Seizures, Epilepsy and Cerebro vascular diseases	6	Experiential-Learning 8.1	PSY-GUD	Does	CBL

Unit 2 Alziemer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders

8.2.1. The pathophysiology, symptoms, diagnosis of alzheimer's disease, parkinson's disease, trigeminal neuralgia, bell's palsy and other cranial nerve disorders

8.2.2. Clinical Examination of alzheimer's disease, parkinson's disease, trigeminal neuralgia, bell's palsy and other cranial nerve disorders

8.2.3. Demonstrate proficiency in evaluating alzheimer's disease, parkinson's disease, trigeminal neuralgia, bell's palsy and other cranial nerve disorders

References: 79,80,102,103,104

3A	3B	3C	3D	3E	3F	3G
CO5	Elaborate on the pathophysiology , symptoms, diagnosis of Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders	2	Lecture	CC	Knows-how	L&PPT ,L
CO6	Perform Clinical Examination of Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders	4	Practical Training 8.2	PSY-GUD	Shows-how	CBL,DIS
CO6	Demonstrate proficiency in evaluating Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders	5	Experiential-Learning 8.2	PSY-GUD	Does	CBL

Unit 3 Amyotrophic Lateral Sclerosis(AML) and other Motor Neuron Diseases(MND), Prion disease and focal cerebral lesions

8.3.1. Elaboration on the pathophysiology, symptoms, and diagnosis of Amyotrophic Lateral Sclerosis (AML) and other Motor Neuron Diseases(MND), prion disease and focal cerebral lesions

8.3.2. Clinical Examination of Amyotrophic Lateral Sclerosis (AML) and other Motor Neuron Diseases(MND), prion disease and focal cerebral lesions

8.3.3. Demonstrate proficiency in evaluating Amyotrophic Lateral Sclerosis (AML) and other Motor Neuron Diseases(MND), prion disease and focal cerebral lesions

References: 81,82,83,105

3A	3B	3C	3D	3E	3F	3G
CO6	Elaborate the pathophysiology , symptoms, diagnosis of Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions	2	Lecture	CC	Knows-how	L&PPT ,L

CO6	Perform the Clinical examination of Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions	4	Practical Training 8.3	PSY-GUD	Shows-how	D-BED,D
CO6	Demonstrate proficiency in evaluating Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions	5	Experiential-Learning 8.3	PSY-GUD	Does	CBL

Unit 4 Myasthenia gravis, Muscular dystrophy and Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness in war veterans

8.4.1. Elaboration on the pathophysiology, symptoms, and diagnosis of Myasthenia gravis, muscular dystrophy and myositis, peripheral neuropathy, chronic fatigue syndrome and neuropsychiatric illness

8.4.2. Clinical Examination of Myasthenia gravis, muscular dystrophy and myositis, peripheral neuropathy, chronic fatigue syndrome and neuropsychiatric illness

8.4.3. Demonstrate proficiency in evaluating Myasthenia gravis, muscular dystrophy and myositis, peripheral neuropathy, chronic fatigue syndrome and neuropsychiatric illness

References: 84,85,106,107,108,109

3A	3B	3C	3D	3E	3F	3G
CO6	Elaborate the pathophysiology , symptoms, diagnosis of Myasthenia gravis, Muscular dystrophy and Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness	2	Lecture	CC	Knows-how	L,L&PPT
CO6	Perform the Clinical examination of Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness	4	Practical Training 8.4	PSY-GUD	Shows-how	D,D-BED
CO6	Demonstrate proficiency in evaluating Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness	5	Experiential-Learning 8.4	PSY-GUD	Does	CBL,D,D-BED

Unit 5 Diseases of the spinal cord, Multiple sclerosis, Gullain barre syndrome and other demyelinating diseases

8.5.1. Elaboration on the pathophysiology, symptoms, and diagnosis of diseases of the Spinal cord, multiple sclerosis, Guillain-Barré syndrome and other Demyelinating diseases

8.5.2. Clinical Examination of diseases of the Spinal cord, multiple sclerosis, Guillain-Barré syndrome and other Demyelinating diseases

8.5.3. Demonstrate proficiency in evaluating diseases of the Spinal cord, multiple sclerosis, Guillain-Barré syndrome and other Demyelinating diseases

References: 110,111,112,113,114

3A	3B	3C	3D	3E	3F	3G
CO6	Elaborate the pathophysiology , symptoms, diagnosis of Diseases of Spinal cord, Multiple sclerosis, Gullain barre syndrome and other Demyelinating diseases	2	Lecture	CC	Knows-how	L&PPT ,L
CO6	Perform the clinical examination of the diseases of spinal cord, multiple sclerosis, gullain barre syndrome and other demyelinating diseases	4	Practical Training 8.5	PSY-GUD	Shows-how	CBL,BS
CO6	Demonstrate proficiency in evaluating diseases of spinal cord, multiple sclerosis, gullain barre syndrome and other demyelinating diseases	5	Experiential-Learning 8.5	PSY-GUD	Does	PL,RP,SD L

Practical Training Activity

Practical Training 8.1 : The clinical examination for seizures, epilepsy and cerebrovascular diseases

Total activity:- 4 hrs

Activity: Case-Based Learning, Demonstration, Demonstration Bedside

Step 1: The teacher will provide a strong foundation in understanding the pathophysiology, clinical features, and management of seizures, epilepsy, and cerebrovascular diseases. (1 hour)

Step 2: The teacher will show case studies and examples where seizures and CVD are diagnosed using neurological examinations. (1 hour)

Step 3: The teacher will present students with case scenarios that include both seizures and CVD, challenging them to differentiate the two based on clinical presentation and history. (1 hour)

Step 4: The teacher will conduct multiple-choice questions, short-answer questions, or case-based questions on the differentiation and management of seizures, epilepsy, and cerebrovascular diseases. (1 hour)

Practical Training 8.2 : The Clinical Examination of alzheimer's disease, parkinson's disease, trigeminal neuralgia, bell's palsy and other cranial nerve disorders

Total activity:- 4 hrs

Activity : Case-Based Learning

Step 1: The teacher will provide a strong foundation in understanding the pathophysiology, clinical features, and management of Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders. (1 hour)

Step 2: The teacher will show case studies and examples where Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders are diagnosed using neurological examinations. (1 hour)

Step 3: The teacher will present students with case scenarios that include Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders, challenging them to differentiate based on clinical presentation and history. (1 hour)

Step 4: The teacher will conduct multiple-choice questions, short-answer questions, or case-based questions on the differentiation and management of Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders. (1 hour)

Practical Training 8.3 : The Clinical examination of Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions

Total activity:- 4 hrs

Activity: Demonstration, Demonstration Bedside

Step 1: The teacher will provide a strong foundation in understanding the pathophysiology, clinical features, and management of Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions. (1 hour)

Step 2: The teacher will show case studies and examples where Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions are diagnosed using neurological examinations. (1 hour)

Step 3: The teacher will present students with case scenarios that include Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions, challenging them to differentiate based on clinical presentation and history. (1 hour)

Step 4: The teacher will conduct multiple-choice questions, short-answer questions, or case-based questions on the differentiation and management of Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions. (1 hour)

Practical Training 8.4 : The Clinical examination of myasthenia gravis, muscular dystrophy, Myositis, peripheral neuropathy, chronic fatigue syndrome and neuropsychiatric illness

Total activity:- 4 hrs

Activity: Demonstration, Demonstration Bedside

Step 1: The teacher will provide a strong foundation in understanding the pathophysiology, clinical features, and management of Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness (1 hour)

Step 2: The teacher will show case studies and examples where Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness are diagnosed using neurological examinations. (1 hour)

Step 3: The teacher will present students with case scenarios that include Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome

and neuro psychiatric illness, challenging them to differentiate based on clinical presentation and history. (1 hour) Step 4: The teacher will conduct multiple-choice questions, short-answer questions, or case-based questions on the differentiation and management of Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuropsychiatric illness. (1 hour)
Practical Training 8.5 : The Clinical examination of the diseases of spinal cord, multiple sclerosis, gullain barre syndrome and other demyelinating diseases
Total activity hours: 4 Activity 1: Brainstorming (1 hour) Teacher will provide a strong foundation in understanding the pathophysiology, clinical features, and management of Diseases of Spinal cord, Multiple sclerosis, Gullain barre syndrome and other Demyelinating diseases Activity 2: Case-Based Learning (3 hours) Teacher will show case studies and examples where the diseases of spinal cord, multiple sclerosis, gullain barre syndrome and other demyelinating diseases are diagnosed using neurological examinations and challenging them to differentiate based on clinical presentation and history (2 hours) Teacher will assess the students by conduct multiple-choice questions, short-answer questions, or case-based questions on the differentiation and management of Diseases of Spinal cord, Multiple sclerosis, Gullain barre syndrome and other Demyelinating diseases. (1 hour)
Experiential learning Activity
Experiential-Learning 8.1 : Case presentation of Seizures, Epilepsy and Cerebro vascular diseases
Total activity:- 6 hrs Activity: Case-Based Learning Step 1: The students will engage in a role play to create scenarios where students will manage a patient presenting with a seizure or epileptic episode, take an accurate history and make decisions about diagnostic tests. (2 hours) Step 2: The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing seizures, epilepsy, and CVD. (2 hours) Step 3: The students will be involved in small group sessions where students practice history-taking and conducting neurological examinations on one another. (2 hours)
Experiential-Learning 8.2 : Case presentation of alzheimer's disease, parkinson's disease, trigeminal neuralgia, bell's palsy and other cranial nerve disorders
Total activity:- 5 hrs Activity: Case-Based Learning Step 1: The students will engage in a role play to create scenarios where students will manage a patient presenting with alzheimer's disease, parkinson's disease, trigeminal

neuralgia, bell's palsy and other cranial nerve disorders, take an accurate history and make decisions about diagnostic tests. (2 hours)
 Step 2: The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing Alzheimer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders. (2 hours)
 Step 3: The students will be involved in small group sessions where students practice history-taking and conducting neurological examinations on one another. (1 hour)

Experiential-Learning 8.3 : Case presentation of Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions

Total activity:- 5 hrs
 Activity: Case-Based Learning
 Step 1: The students will engage in a role play to create scenarios where students will manage a patient presenting with Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions, take an accurate history and make decisions about diagnostic tests. (2 hours)
 Step 2: The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions. (2 hours)
 Step 3: The students will be involved in small group sessions where students practice history-taking and conducting neurological examinations on one another (1 hour)

Experiential-Learning 8.4 : Case presentation of Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness

Total activity hours-5
 Activity: Case-Based Learning, Demonstration, Demonstration Bedside
 Students will Involve a role play to create scenarios where students will Manage a patient presenting with Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness, take an accurate history and make decisions about diagnostic tests. (2 hours)
 Students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness .(2 hours)
 Students will involve in small group sessions where students practice history-taking and conducting neurological examinations on one another. (1 hour)

Experiential-Learning 8.5 : Case presentation of the diseases of spinal cord, multiple sclerosis, gullain barre syndrome and other demyelinating diseases

Total activity:- 5 hrs
 Activity 1: Roleplays(2 hours)
 The students will be involved in role play to create scenarios where students will manage a patient presenting with Diseases of the Spinal cord, Multiple sclerosis, Guillain-Barré syndrome and other Demyelinating diseases, take an accurate history and make decisions about diagnostic tests.
 Activity 2: Peer Learning (2 hours)

The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing Diseases of the Spinal cord, Multiple sclerosis, Guillain-Barré syndrome and other Demyelinating diseases.

Activity 3: Self-directed Learning (1 hour)

The students will be involved in small group sessions where students practice history-taking and conducting neurological examinations on one another.

Modular Assessment

Assessment method

Hour

Conduct a structured modular assessment. Assessment will be 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C

4

Assess basic knowledge about the subject 50 marks.

Theory open book test: The Student will be given a topic in neurology and asked to write an open book test (20 marks)

Active participation in quizzes and Group discussions on neurological diseases. (20 marks)

Structured LAQ (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)

Module 9 : Clinical manifestation of neurological diseases

Module Learning Objectives

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

Describe the clinical examinations for various neurologic disorders

Explain the clinical manifestations of pain, syncope, gait and balance disturbances, migraine and ataxia

Unit 1 Pain, Syncope, Dizziness and vertigo

9.1.1. The pathophysiology, symptoms, diagnosis of pain, syncope, dizziness and vertigo

9.1.2. The Clinical examination and illustration on the differential diagnoses of pain, syncope, dizziness and vertigo associated with neurological disorders

9.1.3. Demonstration of proficiency in evaluating pain, syncope, dizziness and vertigo

References: 87,88,89,90

3A	3B	3C	3D	3E	3F	3G
CO5	Elaborate the pathophysiology, symptoms, diagnosis of pain, syncope, dizziness and vertigo	1	Lecture	CC	Knows-how	L&PPT ,L
CO5	Perform the clinical Examination of pain, syncope, dizziness and vertigo	2	Practical Training 9.1	PSY-GUD	Shows-how	D-BED,D
CO5	Demonstrate proficiency in evaluating pain, syncope, dizziness and vertigo	3	Experiential-Learning 9.1	PSY-MEC	Does	D-BED,D

Unit 2 Fatigue, Numbness, Gait and balance disturbances

- 9.2.1. The pathophysiology, symptoms and diagnosis of fatigue, numbness, gait and balance disturbances
 9.2.2. The Clinical examination of fatigue, numbness, gait and balance disturbances
 9.2.3. Demonstration of proficiency in evaluating fatigue, numbness, gait and balance disturbances

References: 91,92,94

3A	3B	3C	3D	3E	3F	3G
CO5	Elaborate on the pathophysiology , symptoms, diagnosis of Fatigue, Numbness, Gait and balance disturbances	1	Lecture	CC	Knows-how	L,L&PPT
CO5	Perform the clinical Examination of Fatigue, Numbness, Gait and balance disturbances	2	Practical Training 9.2	PSY-GUD	Shows-how	D-BED,L_V C,D
CO5	Demonstrate proficiency in evaluating Fatigue, Numbness, Gait and balance disturbances	3	Experiential-Learning 9.2	PSY-GUD	Does	D-BED,C BL,D

Unit 3 Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia

- 9.3.1. The pathophysiology, symptoms and diagnosis of confusion, delirium, coma, aphasia, dysphasia and dementia
 9.3.2. The Clinical Examination of confusion, delirium, coma, aphasia, dysphasia and dementia
 9.3.3. Demonstration of proficiency in evaluating confusion, delirium, coma, aphasia, dysphasia and dementia

References: 75,77,95,96,97

3A	3B	3C	3D	3E	3F	3G
CO5	Elaborate on the pathophysiology, symptoms, diagnosis of Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia	1	Lecture	CC	Knows-how	L,L&PPT
CO5	Perform the clinical Examination of Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia	2	Practical Training 9.3	PSY-GUD	Shows-how	CBL,D-BED,D

CO5	Demonstrate proficiency in evaluating Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia	3	Experiential-Learning 9.3	PSY-GUD	Does	D-BED,D
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Unit 4 Migraine and other headaches, Insomnia

9.4.1. The pathophysiology, symptoms, diagnosis of migraine and other headaches, and insomnia

9.4.2. The Clinical Examination of migraine and other headaches, and insomnia

9.4.3. Demonstration of proficiency in evaluating migraine and other headaches, and insomnia

References: 98,100

3A	3B	3C	3D	3E	3F	3G
CO5	Elaborate on the pathophysiology , symptoms, diagnosis of Migraine and other headaches, Insomnia	1	Lecture	CC	Knows-how	L,L&PPT
CO5	Perform the clinical Examination of Insomnia, Migraine and other headaches	2	Practical Training 9.4	PSY-GUD	Shows-how	L_VC,D, D-BED
CO5	Demonstrate proficiency in evaluating Insomnia, Migraine and other headaches	2	Experiential-Learning 9.4	PSY-GUD	Does	D-BED,D ,CBL

Unit 5 Spino cerebellar ataxia

9.5.1. The pathophysiology, symptoms and diagnosis of ataxia

9.5.2. The Clinical Examination of ataxia

9.5.3. Demonstration of proficiency in evaluating ataxia

References: 76

3A	3B	3C	3D	3E	3F	3G
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CO5	Elaborate on the pathophysiology, symptoms, diagnosis of ataxia	1	Lecture	CC	Knows-how	L,L&PPT
CO5	Perform the clinical Examination of ataxia	2	Practical Training 9.5	PSY-GUD	Shows-how	D,D-BED,CBL
CO5	Demonstrate proficiency in evaluating ataxia	2	Experiential-Learning 9.5	PSY-GUD	Does	CBL,D,D-BED

Practical Training Activity

Practical Training 9.1 : The clinical examination of Pain, syncope, dizziness and vertigo

Total activity:- 2 hrs

Activity: Demonstration, Demonstration Bedside

Step 1: The teacher will explain the pathophysiology, clinical features(signs & symptoms), findings of clinical examinations, findings based on 96 thathuvam, envagai thervu, radiological findings, serological findings, differential diagnosis, management in Siddha, and modern aspect of pain, syncope, dizziness and vertigo with case studies (also published case studies) (1 hour 45 mins)

Step 2: The Teacher will conduct multiple-choice, short-answer, or case-based questions on differentiating and managing pain, syncope, dizziness, and vertigo. (15 mins)

Practical Training 9.2 : The clinical examination of Fatigue, Numbness, Gait and balance disturbances

Total activity:- 2 hrs

Activity: Demonstration, Demonstration Bedside, Lecture with Video clips

Step 1: The teacher will explain the pathophysiology, clinical features(signs & symptoms), findings of clinical examinations (general & neurological examinations), findings based on 96 thathuvam, envagai thervu, radiological findings, serological findings, differential diagnosis, management in Siddha, and modern aspect of Fatigue, Numbness, Gait and balance disturbances with case studies (also published case studies) (1 hour 45 mins)

Step 2: The teacher will conduct multiple-choice, short-answer, or case-based questions to differentiate and manage fatigue, numbness, gait, and balance disturbances. (15 mins)

Practical Training 9.3 : The clinical examination of Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia

Total activity :- 2 hrs

Activity: Case-Based Learning, Demonstration, Demonstration Bedside

Step 1: The teacher will explain the pathophysiology, clinical features(signs & symptoms), findings of clinical examinations (general & neurological), findings based on 96

thathuvam, envagai thervu, radiological findings, serological findings, differential diagnosis, management in Siddha, and modern aspect of Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia with case studies (also published case studies) (1 hour 45 mins)

Step 2: The Teacher will conduct multiple-choice, short-answer, or case-based questions on differentiating and managing Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia. (15 mins)

Practical Training 9.4 : The Clinical Examination of Insomnia, Migraine and other headaches

Total activity:- 2 hrs

Activity: Demonstration, Demonstration Bedside, Lecture with Video clips

Step 1: The Teacher will explain the pathophysiology, clinical features(signs & symptoms), findings of clinical examinations (general & neurological), findings based on 96 thathuvam, envagai thervu, radiological findings, serological findings, differential diagnosis, management in Siddha, and modern aspect of Insomnia, Migraine and other headaches with case studies (also published case studies) (1 hour 45 mins)

Step 2: The Teacher will conduct multiple-choice, short-answer, or case-based questions on differentiating and managing Insomnia, Migraine and other headaches. (15 mins)

Practical Training 9.5 : The Clinical Examination of Ataxia

Total activity:- 2 hrs

Step 1: The teacher will explain the pathophysiology, clinical features(signs & symptoms), findings of clinical examinations (general & neurological), findings based on 96 thathuvam, envagai thervu, radiological findings, serological findings, differential diagnosis, management in Siddha, and modern aspect of ataxia with case studies (also published case studies) (1 hour 45 mins)

Step 2: The Teacher will conduct multiple-choice, short-answer, or case-based questions on differentiating and managing ataxia. (15 mins)

Experiential learning Activity

Experiential-Learning 9.1 : Case presentation of pain, syncope, dizziness and vertigo

Total activity :- 3 hrs

Activity: Demonstration, Demonstration Bedside

Step 1. The students will Involve a role play to create scenarios where students will manage a patient presenting with pain, syncope, dizziness and vertigo, take an accurate history and make decisions about diagnostic tests. (1 hour)

Step 2: The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing pain, syncope, dizziness and vertigo. (1 hour)

Step 3: The students will be involved in small group sessions where students practice history-taking and conducting neurological examinations on one another. (1 hour)

Experiential-Learning 9.2 : Case presentation of Fatigue, Numbness, Gait and balance disturbances

Total activity :-3 hrs

Activity: Case-Based Learning, Demonstration, Demonstration Bedside

Step 1: The students will be involved a role play to create scenarios where students will Manage a patient presenting with Fatigue, Numbness, Gait and balance disturbances, take an accurate history and make decisions about diagnostic tests. (1 hour)

Step 2: The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing Fatigue, Numbness, Gait and balance disturbances. (1 hour)

Step 3: Students will be involved in small group sessions where students practice history-taking and conducting neurological examinations on one another (1 hour)

Experiential-Learning 9.3 : Case presentation of Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia

Total activity:- 3 hrs

Activity: Demonstration, Demonstration Bedside

Step 1: The students will engage in a role play to create scenarios where students will Manage a patient presenting with Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia, take an accurate history and make decisions about diagnostic tests. (1 hour)

Step 2: The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia. (1 hour)

Step 3: The Students will be involved in small group sessions where students practice history-taking and conducting neurological examinations on one another. (1 hour)

Experiential-Learning 9.4 : Case presentation of Insomnia, Migraine and other headaches

Total activity :- 2 hrs

Activity: Case-Based Learning, Demonstration, Demonstration Bedside

Step 1: The students will engage in a role play to create scenarios where students will manage a patient presenting with Insomnia, Migraine and other headaches, take an accurate history and make decisions about diagnostic tests. (30 minutes)

Step 2: The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing Insomnia, Migraine and other headaches.

(30 minutes)

Step 3: The students will be involved in small group sessions where students practice history-taking and conducting neurological examinations on one another. (1 hour)

Experiential-Learning 9.5 : Case presentation of ataxia

Total activity:- 2 hrs Activity: Case-Based Learning, Demonstration, Demonstration Bedside Step 1: The students will engage in a role play to create scenarios where students will manage a patient presenting with ataxia, take an accurate history and make decisions about diagnostic tests.(30 minutes) Step 2: The students will search for resources for further study, including online platforms, journals, and clinical guidelines for managing ataxia. (30 minutes) Step 3: The students will involve in small group sessions where students practice history-taking and conducting neurological examinations on one another (1 hour)	
Modular Assessment	
Assessment method	Hour
Conduct a structured modular assessment. Assessment will be 25 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the modular grade point as per the table 6C Assess basic knowledge about the subject 25marks. Theory open book test: Students will be given a topic in neurology and asked to write an open book test (5 marks) Interpret clinical, laboratory and radiological findings with pain, syncope, Gait and balance disturbances, migraine and ataxia (10 marks) Structured LAQ (10 marks) Or Any practical in converted form can be taken for assessment (10marks) and Any of the experiential as portfolio/reflections/presentations, can be taken as an assessment (15 marks)	2

Table 4 : Practical Training Activity

(*Refer table 3 of similar activity number)		
Practical No*	Practical name	Hours
1.1	Role and uniqueness of varmam	4
1.2	96 thathuvangal, karu urpathi relationship between human body and 14 vegangal	4
1.3	Mechanism of 5 elemental theory, the relationship between the three bodies and 96 thathuvangal	4
1.4	Correlation between mukkalai, mummandalam in human body.	4
1.5	Data collection from various sources and decoding of varmam manuscripts	4
2.1	Location and stimulation of vaasi - aathara chakaram	4
2.2	Amirthakalai ,visakalai and naanakalai - Correlation	4
2.3	Vaasi kalai mechanism with 27 Stars	4
2.4	Flow of naadi based on varmam and derangement of naadi in clinical condition	4
2.5	Panchapatchi in varmam clinical condition	4
3.1	Medical, Traumatic and Regional classification of varmam	4
3.2	The relationship between varmam with naadi and aadharam	4
3.3	Varmam based on mukkuttram, panchabootham and alavai	4
3.4	Varmam based on qualitative,single-multiple and prognosis and application of anasthetic varmam points	4

3.5	Classification of varmam based on gender,structure and ottrai-erattai	4
4.1	Varma thadaval along the pathway of idakalai and pingalai	4
4.2	Varma thadaval technique demonstration: suzhumunai and singuvai pathways	4
4.3	Varma thadaval along the pathway of purudan, kandhari and athi naadi	4
4.4	Varma thadaval along the pathway of alampurudan, sangini and kugu	4
4.5	Varma thadaval along the pathway of visothirai and paisini	4
5.1	The techniques of varmam maathirai and irai	2
5.2	Therapeutic methods of varma muthirai	2
5.3	The unique techniques of varmam muthirai	4
5.4	Varma thiravukol techniques	2
6.1	Varmam kalari techniques	4
6.2	The techniques of silambam	4
6.3	Enlist the manipulation methods of various varmam from folklore practitioners	4
6.4	Ethno varmam practices and bone setting techniques	4
6.5	Exploration of mani, manthiram practiced by folklore practitioners	4
7.1	Dissection of the brain and spinal cord by using specimens, 3D models	4
7.2	Examination of sensory nervous system, motor nervous system and cranial nerves.	4
7.3	Radiological finding evaluation of the basics of neuroimaging techniques	4
7.4	CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) - Illustration	4
7.5	Diagnostic importance of EEG and EMG.	4

8.1	The clinical examination for seizures, epilepsy and cerebrovascular diseases	4
8.2	The Clinical Examination of alzheimer's disease, parkinson's disease, trigeminal neuralgia, bell's palsy and other cranial nerve disorders	4
8.3	The Clinical examination of Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions	4
8.4	The Clinical examination of myasthenia gravis, muscular dystrophy, Myositis, peripheral neuropathy, chronic fatigue syndrome and neuropsychiatric illness	4
8.5	The Clinical examination of the diseases of spinal cord, multiple sclerosis, gullain barre syndrome and other demyelinating diseases	4
9.1	The clinical examination of Pain, syncope, dizziness and vertigo	2
9.2	The clinical examination of Fatigue, Numbness, Gait and balance disturbances	2
9.3	The clinical examination of Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia	2
9.4	The Clinical Examination of Insomnia, Migraine and other headaches	2
9.5	The Clinical Examination of Ataxia	2

Table 5 : Experiential learning Activity

(*Refer table 3 of similar activity number)		
Experiential learning No*	Experiential name	Hours
1.1	The role and uniqueness of varmam, documentation from various varmam practitioners	5
1.2	Karu urpathi, 14 vegangal and 96 thathuvangal in comparison with modern science	5
1.3	The concept of 5 elemental theory on moovudal in varmam	5
1.4	The mukkalai with 12 naadi, mummandalam and moovudal	5
1.5	Compilation and documentation of the collected data from various sources	6
2.1	The relationship between vaasi,aathara chakaram and varmam	5
2.2	The flow of bio energy (vaasi), lunar based energy in 30 amritha kalai (elixir)sites	5
2.3	Role Vaasi kalai in 12 raasi and 27 stars	5
2.4	Naadi variation associated with the various varmam clinical conditions	6
2.5	Panchapatchi variations in varmam clinical conditions	5
3.1	Varmam points application based on medical,regional and traumatic classification.	6
3.2	The flow of naadi with Aatharam	5
3.3	Varmam based on mukkuttram, panchabootham and alavai	5
3.4	Application of varmam according to the classification based on qualitative and prognosis	5
3.5	Application of varmam according to the classification of varmam based on structure, gender and ennikkai (numerical)	5
4.1	Proficiency in performing varma thadaval for idakalai and pingalai naadi	6
4.2	Varma thadaval for suzhumunai and singuvai	5

4.3	Varmam thadaval for purudan, kandhari and athi naadi	5
4.4	Varma thadaval for alampurudan, sangini and kugu naadi	5
4.5	Varma thadaval for visothirai and paisini naadi	5
5.1	Enlisted techniques of varmam maathirai and irai	3
5.2	Varma muthirai in various therapeutic aspects	2
5.3	Varmam muthirai for head and neck, abdomen, thorax and limbs	6
5.4	The techniques of thiravukol	2
6.1	Kalari for simple health conditions	6
6.2	Techniques of silambam	5
6.3	Traditional varmam manipulation techniques practiced by traditional varmam practitioners and documented.	5
6.4	Ethno varmam practices and traditional bone setting techniques	5
6.5	Enlisted mani and manthiram techniques practiced by traditional varmam practitioners	5
7.1	Virtual dissection of the brain and spinal cord	5
7.2	Examination of the sensory nervous system, the motor nervous system, and cranial nerves.	6
7.3	Diagnosis based on neuro imaging	5
7.4	CT, MRI and other imaging techniques (PET, NIRS, MEG, fMRI) - Radiological finding diagnosis	5
7.5	Diagnose based on clinical conditions with EEG and EMG	5
8.1	Case presentation of Seizures, Epilepsy and Cerebro vascular diseases	6
8.2	Case presentation of alzheimer's disease, parkinson's disease, trigeminal neuralgia, bell's palsy and other cranial nerve disorders	5

8.3	Case presentation of Amyotrophic Lateral Sclerosis and other Motor neuron diseases, Prion disease and focal cerebral lesions	5
8.4	Case presentation of Myasthenia gravis, Muscular dystrophy, Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness	5
8.5	Case presentation of the diseases of spinal cord, multiple sclerosis, gullain barre syndrome and other demyelinating diseases	5
9.1	Case presentation of pain, syncope, dizziness and vertigo	3
9.2	Case presentation of Fatigue, Numbness, Gait and balance disturbances	3
9.3	Case presentation of Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia	3
9.4	Case presentation of Insomnia, Migraine and other headaches	2
9.5	Case presentation of ataxia	2

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-VM	1	100	200	300

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

SIDPG-AB-VM consists of 9 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. Varmam Therapy	2	60		50		
M2. Sara soothiram and amirtha nilai thathuvam	2	60		50		
M3. Classification of varmam points	2	60		50		
M4. Varmam naadi (pathway of vaasi) & vaayu thalangal	2	60		50		
M5. Varmam thoondum muraigal (manipulation methods)	1	30		25		
M6. Varmam kalari & ethnovarmam practices	2	60		50		
M7. Basics of applied neurology & neuro diagnostic techniques	2	60		50		
M8. Diseases of the Nervous system	2	60		50		
M9. Clinical manifestation of neurological diseases	1	30		25		

$$\text{MGP} = \frac{(\text{Number of Notional learning hours attended in a module}) \times (\text{Marks obtained in the modular assessment})}{(\text{Total number of Notional learning hours in the module}) \times (\text{Maximum marks of the module})} \times 100$$

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.Varmam Therapy	C1
2	M2.Sara soothiram and amirtha nilai thathuvam	C2
3	M3.Classification of varmam points	C3
4	M4.Varmam naadi (pathway of vaasi) & vaayu thalanganal	C4
5	M5.Varmam thoondum muraigal (manipulation methods)	C5
6	M6.Varmam kalari & ethnovarmam practices	C6
7	M7.Basics of applied neurology & neuro diagnostic techniques	C7
8	M8.Diseases of the Nervous system	C8
9	M9.Clinical manifestation of neurological diseases	C9
	Semester Grade point Average (SGPA)	$(C1+C2+C3+C4+C5+C6+C7+C8+C9) / \text{Number of modules}(9)$

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-VM 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
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6 F : Distribution for summative assessment (University examination)

S.No	List of Module/Unit	ABQ	SAQ	LAQ
(M-1)Varmam Therapy (Marks: Range 5-15)				
1	(U-1) Fundamentals of varmam	No	Yes	No
2	(U-2) Karu urpathi, 96 thathuvam and 14 vegangal	No	Yes	Yes
3	(U-3) Iym boodha thathuvam and Moovudal thathuvam in varmam	No	Yes	No
4	(U-4) Mukkalai thathuvam and Mummandala thathuvam in varmam	No	Yes	No
5	(U-5) Varmam research studies and document the ancient texts	No	Yes	Yes
(M-2)Sara soothiram and amirtha nilai thathuvam (Marks: Range 5-20)				
1	(U-1) Vaasi and its formation	No	Yes	Yes
2	(U-2) Circulation of amirtha, visha, Nana kalai based on thithi sites	Yes	Yes	No
3	(U-3) Role of vaasi kalai in 12 months & 27 stars	No	Yes	Yes
4	(U-4) Role of Naadi Diagnosis in Varmam maruthuvam	No	Yes	No
5	(U-5) Panchapatchi in varmam	No	Yes	No
(M-3)Classification of varmam points (Marks: Range 5-20)				
1	(U-1) Medical classification, Traumatic classification and Regional classification	No	Yes	Yes
2	(U-2) Classification based on Naadi and Aadharam	Yes	Yes	Yes
3	(U-3) Classification based on Mukkuttram, Panchabootham and Alavai	No	Yes	No
4	(U-4) Prognostic classification, Qualitative classification, Structural classification, Single, multiple classification and Gender classification, Anaesthetic varmam points	No	Yes	No
5	(U-5) Classification based on structure, gender ,ottrai-erattai(numerical)	No	Yes	No
(M-4)Varmam naadi (pathway of vaasi) & vaayu thalangal (Marks: Range 5-20)				
1	(U-1) Idakalai and pingalai naadi and its pathway	Yes	Yes	Yes
2	(U-2) Suzhumunai, singuvai naadi and its pathway	Yes	Yes	Yes
3	(U-3) Purudan, kandhari and athi naadi and its pathway	Yes	Yes	Yes
4	(U-4) Alampurudan, sangini and kugu naadi and its pathway	Yes	Yes	Yes
5	(U-5) Visothirai and paisini naadi and its pathway	Yes	Yes	Yes
(M-5)Varmam thoondum muraigal (manipulation methods) (Marks: Range 5-15)				
1	(U-1) Varma maathirai and irai	No	Yes	No
2	(U-2) Types and therapeutic efficacy of Varma muthirai	No	Yes	Yes

3	(U-3) Varmam muthirai used in head and neck, abdomen and thorax and limbs	No	Yes	No
4	(U-4) Varma thiravukol	No	Yes	Yes
(M-6)Varmam kalari & ethnovarmam practices (Marks: Range 5-15)				
1	(U-1) Kalari – Definition, Types, therapeutic importance and its role in day to day life	No	Yes	No
2	(U-2) Silambam in varmam kalari – Role and importance	No	Yes	No
3	(U-3) Ethno varmam practices for various diseases	No	Yes	Yes
4	(U-4) varmam practices for traditional bone setting	No	Yes	No
5	(U-5) Mani, Manthiram	No	Yes	No
(M-7)Basics of applied neurology & neuro diagnostic techniques (Marks: Range 5-20)				
1	(U-1) Overview of functional neuroanatomy and neurophysiology	No	Yes	Yes
2	(U-2) Examination of sensory nervous system, motor nervous system, reflexes and cranial nerves	Yes	Yes	Yes
3	(U-3) Basics of neuro imaging	No	Yes	No
4	(U-4) Importance of CT, MRI and other neuro imaging technique in neurologic diseases	No	Yes	Yes
5	(U-5) Electro diagnostic Studies of Neurologic Disorders: EEG and EMG	No	Yes	Yes
(M-8)Diseases of the Nervous system (Marks: Range 5-20)				
1	(U-1) Seizures, epilepsy and Cerebro vascular diseases	Yes	Yes	Yes
2	(U-2) Alziemer's disease, Parkinson's disease, Trigeminal neuralgia, Bell's palsy and other cranial nerve disorders	Yes	Yes	Yes
3	(U-3) Amyotrophic Lateral Sclerosis(AML) and other Motor Neuron Diseases(MND), Prion disease and focal cerebral lesions	Yes	Yes	Yes
4	(U-4) Myasthenia gravis, Muscular dystrophy and Myositis, Peripheral neuropathy, Chronic fatigue syndrome and neuro psychiatric illness in war veterans	No	Yes	Yes
5	(U-5) Diseases of the spinal cord, Multiple sclerosis, Gullain barre syndrome and other demyelinating diseases	Yes	Yes	No
(M-9)Clinical manifestation of neurological diseases (Marks: Range 5-15)				
1	(U-1) Pain, Syncope, Dizziness and vertigo	No	Yes	Yes
2	(U-2) Fatigue, Numbness, Gait and balance disturbances	No	Yes	Yes
3	(U-3) Confusion, Delirium, Coma, Aphasia, Dysphasia and Dementia	No	Yes	Yes

4	(U-4) Migraine and other headaches, Insomnia	No	Yes	No
5	(U-5) Spino cerebellar ataxia	No	Yes	No

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

Instructions for the paper setting.

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

Blueprint		
Question No	Type of Question	Question Paper Format
Q1	Application based Questions 1 Question 20 marks All compulsory	M2.U2 Or M3.U2 Or M4.U1 Or M4.U2 Or M4.U3 Or M4.U4 Or M4.U5 Or M7.U2 Or M8.U1 Or M8.U2 Or M8.U3 Or M8.U5
Q2	Short answer Questions Eight Questions 5 Marks Each All compulsory	1. M1.U1 Or . M1.U3 Or . M1.U4 Or . M1.U2 Or . M1.U5 2. M2.U1 Or . M2.U2 Or . M2.U3 Or . M2.U4 Or . M2.U5 3. M3.U1 Or . M3.U3 Or . M3.U4 Or . M3.U5 4. M4.U1 Or . M4.U2 Or . M4.U3 Or . M4.U4 Or . M4.U5 5. M5.U1 Or . M5.U2 Or . M5.U3 Or . M5.U4 6. M6.U1 Or . M6.U2 Or . M6.U3 Or . M6.U4 Or . M6.U5 7. M7.U1 Or . M7.U3 Or . M7.U4 Or . M7.U5 8. M8.U1 Or . M8.U5 Or . M9.U1 Or . M9.U2 Or . M9.U4 Or . M9.U5
Q3	Analytical Based Structured Long answer Questions Four Questions 10 marks each All compulsory	1. M1.U2 Or . M1.U5 Or . M2.U1 Or . M2.U3 Or . M3.U1 Or . M3.U2 2. M4.U1 Or . M4.U2 Or . M4.U3 Or . M4.U5 Or . M4.U4 Or . M5.U2 Or . M5.U4 3. M6.U3 Or . M7.U1 Or . M7.U2 Or . M7.U4 Or . M7.U5 Or . M8.U1 4. M8.U2 Or . M8.U3 Or . M8.U4 Or . M9.U1 Or . M9.U2 Or . M9.U3

6 H : Distribution of Practical Exam (University Examination)

S.No	Heads	Marks
1	LONG CASE - Major Clinical examination Duration - 1 1/2 hrs Procedure - IPD Case diagnosis	80
2	1) MINOR CLINICALS - Short Case Duration - 30 minutes Procedure - OPD based diagnosis (Any one neuromuscular disorder/auto immune disorder) (15 mark) 2) MINOR CLINICALS - Short Case (Dermatological/endocrinological disorders) (15 mark) Duration - 30 minutes Procedure - OPD based diagnosis 3) SPOTTER - Clinical examination Duration - 30 minutes (3mark for each spotters) Spotters Spotter No. 1 - <i>Naadi</i> Spotter No. 2 - Case Summary (2-line description): “Provide 2-line signs and symptoms of any disease.” Spotters No.3 - Specimen: <i>aadhara chakkaram</i> Spotter No. 4 - Specimen: <i>Amirthakalai/ vishakalai / nanakalai- thalangal</i> Spotter No. 5 - Lab report summary (2-line description): Spotter No. 6 - Varmam Spotter No. 7 - Varmam Spotter No. 8 - X-ray Spotters 9 - CT - brain Spotters 10 - <i>varma muthirai</i>	60
3	VIVA Examination: Total Marks: 40 (2 Examiners × 20 marks each)	40
4	Logbook	10
5	Practical / Clinical Record – Case study records of 10 cases	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		