

INTERDISCIPLINARY LEARNING AND RESEARCH

Yes. Currently, National Institute of Siddha is offering M.D (Siddha) and Ph.D program. All these programs have interdisciplinary subjects as a basic component. To support interdisciplinary orientations in academic structure, Institute has faculties in various disciplines namely Anatomy, Physiology, Biochemistry, Microbiology, Pharmacology, Medicinal Botany, Pathology, Radiology and Modern Medicine.

Students and research scholars are being trained in interdisciplinary areas through theory Classes, lab experiments, preclinical research procedures in various animal models, Workshops, Seminars and Journal club meetings. Research scholars take up interdisciplinary research areas for their M.D and Ph.D dissertations. Each MD (Siddha) program has interdisciplinary subjects as part of its syllabus.

1. Research Methodology and Biostatistics

All the branches have Common paper Research Methodology and Biomedical Statistical Clinical Research Methods wherein students learn Research methodologies to be adopted in Preclinical and Clinical studies and Biostatistics employed in the design of study and analysis of results. Their curriculum includes the following

- Clinical Research Methods
- Biostatistics
- Minor Project

2. Pharmacology as an inter-disciplinary subject

Academics

Pharmacology is a biomedical scientific branch that studies drugs and their actions on the human body. It also provides knowledge in the areas of safety and efficacy validation of drugs, Pharmacovigilance, Pharmacogenomics etc. Siddha system of medicine has a potential to treat disease complications. But it doesn't gain global acceptance because of lack of scientific validation of for its safety and efficacy. This interdisciplinary subject paves the way for strengthening the students in the research areas of safety and efficacy validation. Three M.D Programmes namely Gunapadam, Nanju Maruthuvam and Pothu Maruthuvam branches have



Systemic Pharmacology and Experimental Pharmacology as one of the major subject with Theory and Practical contents. Students acquire **theoretical knowledge** on

- General Pharmacology
- Systemic Pharmacology
- Biological Standardization
- Pharmacological Screening methods employed in validation of safety and efficacy of drugs using various animal models
- Clinical Pharmacology

Students are trained in the following animal models as their **practical exercises**.

- Screening of analgesics-Eddy's Hot plate method, Tail clip method, Acetic acid induced writhing method
- Screening of anti-inflammatory and anti-arthritis agents- Paw volume studies\
- Screening of Anxiolytics-Elevated plus maze test, Y-maze test, Locomotor activity,
- Screening of skeletal muscle relaxant activity-Rotarod test
- Screening of Anti-psychotic agents-CAR response test
- Screening of Anti-convulsants- MES shock induced seizures
- Screening of diuretics-Metabolic cages

Research

Preclinical validation of safety, efficacy of Siddha drugs-Animal house facility

M.D scholars of Gunapadam and Nanju Maruthuvam and Ph.D scholars take up preclinical validation of siddha drugs using animal models. Our Institute has

- CPCSEA approved animal facility.
- IAEC- to take care of animal welfare and ethics in animal research

Our animal house is conventional facility comply with the norms of CPCSEA. Our facility is approved to conduct studies using small animals like rat, mice, rabbits and guinea-pigs for research. On an average 20 research projects of safety and efficacy studies of Siddha drugs are conducted in our facility. All the research scholars should undergo Hands-on training for various research techniques employed in experimental animals and practices of laboratory animal care. Every year we conduct five days workshop on Basic Research Techniques and Practices of Laboratory Animal Care.



Details of workshop conducted for equipping research scholars in the field of Preclinical animal studies

S.No	Programme	Period	No of Participants
1	Workshop on Basic Research Techniques and Practices of Laboratory Animal Care	21.07.2011-23.07.2011 (3 days)	25
2	Workshop on Basic Research Techniques and Practices of Laboratory Animal Care	18.02.13-22.02.13 (5 days)	25
3	Training Programme on Laboratory Animal Care and Maintenance	31.01.2013 - 01.02.2013 (2 days)	25
4	Training on Basic Research Techniques and Practices of Laboratory Animal Care	17.02.2014-21.02.2014 (2 days)	25
5	Workshop on Basic Research Techniques and Practices Involved in Laboratory Animal Care	06.02.2017-10.02.2017 (5 days)	33
6	Workshop on Laboratory Animal Care and Basic Research Techniques	12.02.2018-16.02.2018	30
7	Workshop on Laboratory Animal Care and Basic Research Techniques	11.02.2019-15.02.2019 (5 days)	30
8	Workshop on Basic Research Techniques and Practices Involved in Laboratory Animal Care	24.02.2020-28.02.20 (5 days)	33

Besides we organize field visits to the following animal facilities to enrich the students exposure to various research facilities and animal models used in preclinical research.

- Animal house facility (Barrier facility)-Madhavaram milk colony, Tamilnadu Veterinary and Animal Sciences University
- Animal house facility (Barrier facility)-Vanta Bioscience Pvt Ltd, Gummidipundi, Chennai
- Bioscience Research foundation- (Barrier facility)- Poonamalle, Chennai



3. Pathology-As an Interdisciplinary Subject

Academics

Pathology is the study of development of diseases and its signs and symptoms. It is a well-developed and one of the oldest branches of Modern Medicine. Studying Pathology as a subject is very important to understand the basis of disease development and its clinical presentation irrespective of the system of medicine. In the siddha system of medicine both the undergraduate and some of the postgraduate courses contain modern Pathology as a syllabus including Pathology practical. Even newly proposed MD Siddha interdisciplinary courses contain Pathology as a syllabus. Apart from studying pathology as theory subject, there is also practical exam contains Clinical Pathology practical which provides basic insight about modern pathology laboratory techniques to the Siddha students. Following are the examples of Pathology theory and practical exam papers as per CCIM Siddha syllabus.

BSMS 3rd Professional year contains a full pathology paper- Principles of Modern Pathology including Clinical Pathology, this also include Clinical Pathology, Histopathology and Hematology practical (Ref. No: 1).

MD Siddha Noi Naada, 3rd year Paper 3 contains a full paper- Essentials in Pathology including Clinical Pathology, it is a 250 marks paper including Theory 100marks, Viva 50 marks and Practical/Clinical 100 marks (Ref. No:2).

MD Siddha Pothu maruthuvam, 1st year Paper 2 contains Siddha diagnostic principles and Modern Clinical Diagnostic Methods, part of the paper is composed of modern pathology as a syllabus (Ref. No: 3).

Research

In National Institute of Siddha, most of the MD Siddha dissertation works, PhD research works and faculty research projects invariably include Clinical Pathology Laboratory test parameters as supportive as well as corroborative evidence to the research work. Most of the clinical trials, pilot studies and other type of research studies conducted in NIS require Clinical Pathology laboratory test reports whether it is preclinical or Clinical. In this institute, out of the 48 dissertation works submitted by the postgraduates in each academic year, most of them have had Clinical Pathology Laboratory test reports. The Clinical Pathological



parameters which are generally used in research works are given below.

1. Complete Blood Count(CBC)
 - a. Hemoglobin
 - b. Total WBC Count
 - c. Differential Count
 - d. HCT/PCV
 - e. MCV
 - f. MCH
 - g. MCHC
 - h. Platelet count
 - i. Total RBC
 - j. RDW
 - k. PDW
2. Erythrocyte Sedimentation Ratio(ESR)
3. Absolute Eosinophil count
4. Clotting Parameters
 - a. Bleeding Time
 - b. Clotting Time
5. Peripheral Smear Study
6. Hemo-parasites
 - a. Malarial Parasite
 - b. Filarial Parasite and etc.
7. Urine Physical Examination
 - a. Volume
 - b. Color
 - c. Turbidity
 - d. Specific gravity
 - e. pH
8. Urine Chemical Examination
 - a. Albumin
 - b. Sugar (Fasting & Postprandial and Random)



- c. Bile Salts
 - d. Bile Pigments
 - e. Urobilinogen
 - f. Acetone
- 9. Urine Microscopy
 - 10. Stool Examination
 - a. Ova
 - b. Cyst
 - c. OccultBlood
 - 11. SemenAnalysis

Scope of Pathology Contributions in Future Research in Siddha:

Presently the scope of Pathology contributions to research in Siddha is limited to Clinical Pathology only. But, there will be a vast avenue of Siddha research activity as interdisciplinary approach in association with modern Pathology. Such interdisciplinary research areas can be expanded in the department of Pathology depending upon the needs of research in the siddha system, those are as given below.

- 1. Cytopathology
- 2. Flow cytometry
- 3. Fluid Cytology
- 4. Histopathology
- 5. Immuno-Histochemistry
- 6. Molecular Diganosistic methods
- 7. Immuno fluorescence Microscopy
- 8. Phase contrast Microscopy
- 9. Electron Microscopy and etc.

The Pathology is considered as **Final Diagnosis** in the modern medicine and it is the highly researched area in the modern medical science. Development of medical science without pathological contribution is highly impossible. Utilization pathological parameters and methods in the medical research activities will certainly drive the Siddha system to reach the pinnacle.



4. Modern Medicine as an interdisciplinary Subject

Academics

As part of curriculum, Modern Medicine is a subject for 2 PG branches namely Pothu Maruthuvam and Yoga Maruthuvam. The PG students are given orientation about the etiology, pathogenesis, clinical manifestations, diagnosis, complications and management. The education includes theory classes, clinical case discussions, seminars, journal club, case presentations etc. The PG students with Modern Medicine in their curriculum are being trained in history taking, general clinical examination, systemic examination and making a diagnosis of patients.

Emergency Management in Casualty

PG students of all the departments are posted in Casualty in rotation so that they can equip themselves in identifying emergencies, identifying drug toxicities, identifying seriously ill patients and treating them. They are also taught when to refer the patient, when medical treatment alone may not be sufficient, how to identify acutely ill patients.

Pulmonary Function Testing (pft)

PFT Laboratory is functional and is equipped to teach students about obstructive and restrictive airway diseases and how to interpret PFT's.

RESEARCH

PFT testing is being done to do research to study the effect of siddha drugs and yoga on the functioning of lungs. It also offers scope for research for integrating treatment. As part of NABH training, Hands on CPR training with Adult & pediatric Mannequin was given to PG students.

5. Radiology –As an Interdisciplinary subject

Academic and Research

Radiology is a specialized branch of modern medicine that deals with diagnosis of various diseases using imaging modalities such as Radiography, Contrast Radiography, Ultrasound, CT,



MRI, Mammogram, Doppler etc .It provides medical diagnostic service and thus important role in monitoring treatment and predicting the outcome ,irrespective of the system of medicine used in treating the various diseases.

In Siddha system of medicine, Radiology has been included in the syllabus of some of the post graduate courses .MD Siddha-Noinaadal, third year final examination paper IV has “Recent advances in Diagnostic Methods including Radiology” as the subject including theory and clinical application .

In National institute of Siddha, many PG scholars have had their projects done with contribution from the imaging modalities XR and USG as evidence for monitoring treatment and the prognostic outcome. Few of the projects were: USG Follicular study for 20 volunteers as a part of diagnostic study to check ovulation in reproductive age group, USG abdomen for pre and post treatment evaluation of Gall stones, XR PNS for project study.

As Imaging test (radiology) reports serve as supporting document evidences for disease follow up, outcome monitoring etc, application of various radiology examinations shall be done in Siddha research activities. The available radiology tests Ultrasound, Doppler, Sono mammogram, XR radiography shall be utilized in the appropriate Siddha studies, projects, trials etc. There is a wide area where USG may be used (screening as well as diagnostic) such as urology, breast imaging, vascular imaging, female infertility, hepatobiliary, oncology etc where it can aid in the imaging of disease process, diagnosis, provide comparative pre and post treatment status. Likewise, X-rays also have a wide application area predominantly trauma care, orthopedic.

Radiology examinations have a vast area of application and hence would contribute to the interdisciplinary academic and research activities.

6. Microbiology–As an Interdisciplinary subject

Academics and Research

Microbiology is the study of microorganisms, those being unicellular (single cell), multicellular (cell colony), or acellular (lacking cells). Microbiology encompasses numerous sub-disciplines including virology, bacteriology, mycology, immunology and parasitology. This science offers transdisciplinary approach, exploring epistemological



bridging of siddha medicine with modern biomedicine. In the siddha system of medicine both the undergraduate and some of the postgraduate courses contain microbiology as a syllabus including practical. Following are the examples of Pathology theory and practical exam papers as per CCIM Siddha syllabus.

MD Noinadal, 1st year Paper contains Siddha diagnostic principles and Modern Clinical Diagnostic Methods, part of the paper is composed of microbiology as a syllabus.

Research

In National Institute of Siddha, most of the MD Siddha dissertation works, PhD research works and faculty research projects invariably include Clinical Microbiology Laboratory test parameters as supportive as well as corroborative evidence to the research work. Most of the clinical trials, pilot studies and other type of research studies conducted in NIS requires Clinical Microbiology laboratory test reports whether it is preclinical or Clinical.

PROPOSED MULTIDISCIPLINARY / INTERDISCIPLINARY LEARNING TO UNDERTAKE COLLABORATIVE SIDDHA RESEARCH

Scope for multidisciplinary research in Siddha by entertaining experts / Faculty from basic sciences in order to understand and explore the basic concepts and fundamentals of the Siddha system of Medicine in scientific eyes. The parallel understanding of modern basic sciences through the expertise concerned in the following disciplines and Siddha basic sciences would provide a genuine interface in a corroborative research.

I. MATHEMATICS

Mathematics is a language of science that interprets the uncertain or continuous variables.

Academics – Relativity to Siddha

Siddha system of Medicine holds its own fundamental and basic concepts in which few theories like Three humors and their combinations could be understood and explained through some mathematical theory. The uncertainty existing in validating the combinations of three humors, ascertaining the ratio of panchabootham in subjects etc can be sort out using some mathematical modelling.

Scope of Research

The concepts mentioned below from maths which can be applied successfully in scientific application in research of the fundamentals and basic principles of Siddha and in therapeutic protocols.

- Arithmetics
- Statics
- Geometry
- Probability

Branches in UG/PG (Siddha) – to use Applied Mathematics

1. Under Graduate Courses
2. MD Siddha (PothuMaruthuvam) – Fundamentals & Basics
3. MD Siddha (Noi Nadal) - Diagnosis
4. MD Siddha (Gunapadam) – Drug formulations



II. PHYSICS

Physics is the branch of science that deals with the structure of matter and how the fundamental constituents of the universe interact. Its studies objects ranging from the very small using quantum mechanics to the entire universe using general relativity.

Academics -Relativity to Siddha

Siddha system of medicine, an ancient medical system is resting on its own holistic biology with its theory of creation and existence of the life. According to the Siddha creation theory, Universe is the Microcosm of man and Man is the microcosm of Universe". The physiological system of body depicts a quantized inner transport system responsible to transport of the entire range of biological fluids, nutrients, energies, impulses, emotions, thoughts and all bio-factors, tangible or intangible. This concept could be scientifically explored through the Quantum logic of modern physics.

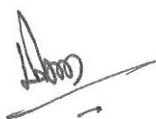
Scope of Research

It is essential to study to study the fundamental and applied aspects of Siddha system in depth and open interface with modern science. The scientific validation of the creation , existence and evolution of life is important so as to understand the biological functioning of human in Siddha perspective in the following branches of physics

- Atomic Physics
- Nuclear Physics
- Quantum Physics.
- Cosmology and Space Exploration
- Mesoscopic physics

Branches in UG / PG (Siddha) – to use Applied Mathematics

- Under Graduate Courses
- MD Siddha (Maruthuvam) – Fundamentals & Basics
- MD Siddha (Noi Nadal) – Diagnosis
- MD Siddha (Gunapadam) – Drug formulations
- MD Siddha (Yoga Maruthuvam)



III. GEOLOGY

Geology is the study of the Earth, the materials of which it is made, the structure of those materials, and the processes acting upon them.

Academics – Relativity to Siddha

Siddha system of Medicine has an primitive and extensive pharmacology that uses raw drugs in the form of Plants, Minerals, Metals, Salts, Animal products and Marine products. Unlike other system of medicine Siddha medicine contains vast drug formulations with metallo mineral constituents which are ordered as higher order medicines. There fore naturally available materials such as floral and faunal extracts and the geological materials such as minerals, rocks, and fossils were developed as potent medicines in Siddha. Gunapadam, is a separate branch that deals with all the drug forms.

The knowledge of identifying and characterizing the mineral and metal ore and its constituents is very much necessary for preparation and standardization of raw drugs and the formulations.

Scope of research

Extensive research in the Siddha pharmacology and pharmacognosy in the insight of geology and its disciplines is very much essential in order to explore and standardize the mineral, metal and marine products of Siddha which are its unique treasure. Also evidences of using surgical instruments, rocky materials, fossils, bones, teeth etc would be a remarkable validation for the potent mineral and metal drugs and in travelling in a scientific pathway of analytical research. The following branches would be of great support in studying the drug products.

- Minerology
- Petrology
- Historical geology
- Indian geology
- Palaeontology
- Stratigraphy
- Hydrology

Branches in UG / PG (Siddha) – to use Applied Mathematics

- Under Graduate Courses
- MD Siddha (Gunapadam) - Pharmacology
- MD Siddha (Pura Maruthuvam)



IV. ANTHROPOLOGY

Anthropology is the scientific study of humanity, concerned with human behaviour, human biology, and societies, in both the present and past, including past human species.

Academics – Relativity to Siddha

Being one of the oldest documented medicine, the origin of Siddha system and the way to persist in the contemporary world may be explored through the branch of Anthropology

Scope of research

Fundamental researches to add evidence to the basic principles and origin of Siddha. The Epistemology of the system can be understood bright in the light of Anthropology

- Linguistic anthropology
- Archeology

Branches in UG / PG (Siddha) – to use Anthropology

- Under Graduate Course - Fundamentals
- MD Siddha (Maruthuvam)
- MD Siddha (Noi Nadal)
- MD Siddha (Yoga Maruthuvam)



V. BOTANY

The scientific study of the physiology, structure, genetics, ecology, distribution, classification, and economic importance of plants.

Academics – Relativity to Siddha

Siddha system of Medicine includes the largest part of medicinal plants and other sources. The detailed study of the plant characteristics is foremost important to reveal the Phyto medical component.

Scope of research

To assist in the research and analytical techniques dealing with herbal raw drugs and formulations and to use authenticated plant materials and to support the collection of genuine herbals.

- Epigenetics
- Phytochemistry
- Plant anatomy
- Plant genetics
- Plant Taxonomy

Branches in UG / PG (Siddha) – to use Botany

- Under Graduate Course
- MD Siddha (Gunapadam)
- MD Siddha (NanjuMaruthuvam)

VI. Manuscriptology - As an Interdisciplinary Subject

Manuscriptology or codicology or paleography, is the study of history and literature through the use of hand-written documents. The term is in use particularly among scholars of South Asian cultural history because many South Asian manuscripts are not codices in the strict sense of the word. They are sources of cultural heritage and history. The treasure of wisdom has come down to people in the form of manuscripts. Written in different Indian languages they are spread all over the country in different institutions, libraries, monasteries and temples and in several private collections.

Classification of manuscripts are based on the materials used for writing like palm leaf manuscript, paper manuscripts, birch bark manuscript, wood manuscript, Hansipatramanuscript, Talpatra manuscript etc and also the subject matter of the manuscripts like Vedas, Dharmasastra, Itihasam, Puranam, Mahatmyam, Tantrigam, mantram, Siddham. Surveys for manuscripts in the past years identified many collections and newer collections must be identified and preserved. Conservation of manuscripts is carried out through 33 Manuscript Conservation Centres (MCCs), besides organizing preventive and curative conservation workshops at different locations of the country as per priorities.



Manuscriptology is the process of conserving the future for the past. It keeps the pulse of the past. It preserves the knowledge of Traditional medicine, literary, linguistic, artistic and cultural heritage. It is very essential to conserve the manuscripts.

Scope of Manuscriptology in Academic and Research

As Siddha system includes vast literature evidences in the form of Paper manuscript, palm leaf manuscript, archaeological evidences in various temples may reveal its antiquity and traditional medicine knowledge related to tamil culture and heritage. In Siddha system of Medicine, both the undergraduate and post graduate may find way to explore its value through manuscriptology in both academics and research. By conserving the manuscripts of Siddha medicine and using information contained in it will open a new horizon in fields of Traditional knowledge globally.

Application of manuscriptology in academics and research - UG / PG

1. Fundamentals and basic principles of Siddha - UG/PG
2. Gunapadam - Siddha Pharmacology - Exploration of Palm leaf manuscript , Paper manuscript for scientific validation.
3. Corroborative evidence for research activities in Siddha

VII. History - As an Interdisciplinary Subject

History reveals chronological overview of the history of the Tamil people and their traditional Siddha way of living in the following era/period

- 1 Pre-historic period
- 2 Pre-Sangam period
- 3 Sangam age
- 4 Post-Sangam period
- 5 Pallava and Pandya
- 6 Chola period
- 7 Chola to Pandya transition
- 8 Pandiya revival and Muslim rule
- 9 Vijayanagar and Nayak period
- 10 East India Company
- 11 British rule
- 12 Post independence period

Archaeology

Archaeology is the study of the ancient and recent human past through material remains. Archaeology analyzes the physical remains of the past in pursuit of a broad and comprehensive understanding of human culture. The importance of archaeology footprints provides Siddha system, its period of evolution in relation to culture and heritage.



Scope of History in Academics and Research

Siddha system of medicine as its foot prints extended from pre historic period to advance modern era. Important of Siddha system of medicine in connection with history reveals tamil peoples life style, food habits, home remedies, helath practices, various sports activities to promote mental and physical health.

Application of history in academics and research - UG/PG

1. Fundamentals and basic principals of Siddha - UG/PG
2. Gunapadam - Siddha Pharmacology - UG/PG
3. Siddhar yoga maruthuvam - UG/PG
4. Corroborative evidance of research activities in Siddha

VIII. Tamil literature - As an Interdisciplinary Subject

Tamil literature has a rich and long literary tradition spanning more than two thousand years. From the 6th to 12th century CE, the Tamil devotional poems written by Nayanmars (sages of Shaivism) and Alvars (sages of Vaishnavism), heralded the great Bhakti movement which later engulfed the entire Indian subcontinent. Basic principles, literature evidences of Siddha medicine are more connected to Tamil epics Tholkappiyam, Silapathigaram, Purananooru.

Scope of Tamil Literture

Basic Siddha principles and fundamentals of Siddha. Renowed Poets and sages are more related to Siddha principles.

Thiruvalluvar, Avaiyardelicated their works to Siddha sytem of medicine.

Application of Tamil Literture in Academics and research - UG/PG

1. Fundamnetals and basic principles of Siddha - UG/PG
2. Initiation of inter diciplinary research in Tamil epics TholKappiyam and Pura nanuru.
3. Corroborative evidence for research activities in Siddha



IX. Chemistry - As an Interdisciplinary Subject

Chemistry is a branch of science which deals with the study of matter composed of atoms and molecules, their properties, composition, structure, behaviour, and interactions among constituents of matter. We all are surrounded by chemistry. Everything around us composes of atoms and molecules including our bodies itself. Through Chemistry, Siddha system may explore in the following areas Astrochemistry, Geochemistry Phytochemistry, Neurochemistry and so on.

Astrology

Astrology is a pseudoscience that claims to divine information about human affairs and terrestrial events by studying the movements and relative positions of celestial objects. Astrology has been dated to at least the 2nd millennium BCE, and has its roots in calendrical systems used to predict seasonal shifts and to interpret celestial cycles as signs of divine communications. Siddha medicine has its basic principle,

“Andathilullathaepindam Pindathilulathaeandam Andamumpindamumonrae”

So, astrology gains importance in evaluating impacts of celestial objects on human.

Scope of Chemistry in Academics / Research

Siddha system of medicine has its valid fundamentals and basic principals in various literature background. Chemistry has its root in four divisions. Astro Chemistry, Geo Chemistry, Phyto Chemistry and Neuro Chemistry. This subject plays a vital role in understanding the scientific background of basic principles, 96 thathuvam, chemical constituents of plants, minerals, animal product and nervous system related to varmam.

Application of chemistry in Academics and research - UG/PG

1. Basic principles / Fundamentals of Siddha - UG/PG
2. Gunapadam (Siddha pharmacology) - UG/PG
3. Varma Maruthuvam - UG/PG
4. NoiNaadal -Medical Astrology - UG/PG
5. Coraborative evidence for research activities in Siddha



X. Zoology - As an Interdisciplinary Subject

Zoology is the scientific study of animals. This discipline can include animal anatomy, physiology, biochemistry, genetics, evolution, ecology, behaviour and conservation. As Siddha Materia medica (Pharmacology) includes herbal, metal/mineral and animal origin formulations, knowledge regarding zoology is important.

Scope of Zoology in Academics / Research

Siddha Pharmacology includes various animal products used in the management of many diseases. Zoology plays an important role in the field of evolution of mankind, ecology and genetics.

Application of Zoology in Academics and research - UG/PG

1. Gunapadam (Siddha Pharmacology) - UG/PG
2. Fundamentals and Basic principles of Siddha - UG/PG
3. Corroborative evidence for research activities in Siddha

