# **USER MANUAL**

# **COURSE CURRICULUM FOR FIRST PROFESSIONAL BSMS** (PRESCRIBED BY NCISM)

(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

தாட்டனைத் தூறும் மணற்கேணி மாந்தர்க்குக் கற்றனைத் தூறும் அறிவு (As deep you dig the sand spring flows; As deep you learn the knowledge grows-THIRUKKURAL 396)



# **BOARD OF UNANI, SIDDHA AND SOWA RIGPA NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE NEW DELHI- 110058**



**User Manual** 

# National Commission for Indian System of Medicine

The National Commission for Indian System of Medicine is the statutory body constituted under NCISM Act, 2020 vide gazette notification extraordinary part (ii) section (i) dated 21.09.2020.

An Act..

- to provide for a medical education system that improves access to quality and affordable medical education, ensures availability of adequate and high quality medical professionals of Indian System of Medicine in all parts of the country;
- that promotes equitable and universal healthcare that encourages community health perspective and makes services of such medical professionals accessible and affordable to all the citizens;
- that promotes national health goals;
- that encourages such medical professionals to adopt latest medical research in their work and to contribute to research;
- that has an objective periodic and transparent assessment of medical institutions and facilitates maintenance of a medical register of Indian System of Medicine.
- for India and enforces high ethical standards in all aspects of medical services;
- that is flexible to adapt to the changing needs and has an effective grievance redressal mechanism and for matters connected therewith or incidental thereto

# Graduate Attributes (GA): -

- GA 1. Competent and skilled Siddha physician / surgeon with profound knowledge of Siddha medicine along with the contemporary advances in the field of Siddha.
- GA 2. Erudite and accomplished practitioner well versed in Vinnavar Maruthuvam (Divine treatment), Maanida Maruthuvam (Rational treatment) and Asura Maruthuvam (Siddha surgical treatment)
- GA 3. Siddha scholar excels his expertise in personalised medicine based on Siddha fundamental principles such as Imbootham (five elements), Mukkutram (three humors), Yakkai ilakkanam (body temperament) and Ninety six thatwas.
- GA 4. Institutionally trained Siddha physicians confirm the diagnosis through "Envagai thervu including Naadi, Neerkkuri and Neikkuri" and treat Noi (disease) and Noi Mudhal (root cause of the disease) simultaneously.
- GA 5. Experienced in handling 32 types of internal medicines and 32 types of external treatment methods so as to provide inclusive / holistic treatment.
- GA 6. Dexterous and skilled at providing Siddha special treatments like Varma therapy, Thokkanam therapy, Yoga therapy, Kaya kalpa therapy and other surgical procedures.
- GA 7. Community educator who is aware of Siddha principles and disciplines of disease prevention, way to maintain community health and National health policies / programs.
- GA 8. Ensures wellness of the people through lifestyle regulations based on Siddhar's "Unave Marunthu; Marunthe Unavu (food is medicine, medicine is food)" and Pini anugaa Vidhi (preventive medicine) concepts.
- GA 9. Talented in converting the knowledge of basic medical sciences to application level in clinical diagnosis, manipulation techniques and treatment procedures.
- GA 10. Siddha Graduate is capable to elucidate the meaning of Tamil verses from ancient Siddha manuscripts.
- GA 11. Critical thinker, problem solver, decision maker, counselor, good communicator, proactive leader and lifelong learner.
- GA 12. Professional who has qualities of researcher, academician, and entrepreneur.

# **Program Outcomes (Po)**

- PO 1. Demonstrate the skills of a physician/surgeon in Siddha medicine along with the knowledge of contemporary advances in the field of Siddha.
- PO 2. Showcase disease management with Vinnavar Maruthuvam (Divine treatment), Maanida Maruthuvam (rational treatment), and Asura Maruthuvam (Siddha surgical treatment).
- PO 3. Apply individualised medicine practice based on Siddha fundamental principles such as Imbootham (five elements), Mukkutram (three humors), Yaakkaiilakkanam (body temperament/constitution), Ninety-six thatwas, and so on.
- PO 4. Demonstrate diagnosis through "Envagaithervu including Naadi, Neerkkuri and Neikkuri" and treat Noi (disease) and Noi Mudhal (root cause of the disease) simultaneously.
- PO 5. Prescribe disease-specific treatment from 32 different types of internal and external medicine.
- PO 6. Perform Siddha special treatments such as Varma therapy, Thokkanam therapy, Yoga therapy, Kaya kalpa therapy and Siddha surgical procedures under Aruvai, Agni and Kaaram.
- PO 7. Educate people on Siddha disciplines of disease prevention, community health and National health policies / programs.
- PO 8. Prescribe lifestyle modifications and preventive medicine and measures as a part of holistic treatment.
- PO 9. Demonstrate the use of anatomy, physiology, biochemistry, microbiology, pharmacology, and other disciplines in clinical diagnosis, treatment, and interdisciplinary research.
- PO 10. Elucidate the meaning of Tamil verses and contents from ancient Siddha manuscripts and translate them into English.
- PO 11. Demonstrate qualities of critical thinking, problem solving, and decision-making. Demonstrate behaviour as a good communicator and counselor.
   Demonstrate the qualities of a proactive leader.
   Demonstrate the behaviour of a lifelong learner.
- PO 12. Exhibits behavior as a researcher, academician, and entrepreneur.

## GA 1 to GA 12 are matched with PO 1 to PO 12.

# User manual.

Welcome to new curriculum of NCISM for I Professional BSMS.

This is an introduction before reading the curriculum file for any course. These instructions in the manual will help reader to easily retrieve the information from the curriculum files. This document involves many familiar and less familiar terms. Some of them are explained in here.

<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text><text><text><text>

First Page: Contains Name, Code, Year and **"QR code**" for downloading the document.

Second page is Summary page for the Course. The Page will provide at a glance information of Lecture and Non-Lecture hours, Distribution of hours as per papers, Distribution of Marks 
 Total number of Teaching Jours: 600

 Lecture Jours (LH) - Total number of Teaching Jours: 600

 Pager II
 100 Hours
 200 Hours
 200 Hours
 200 Hours

 Pager II
 100 Hours
 60 Hours
 120 Hours
 400 Hours
 400 Hours

 Non-Lecture Jours (NLH)
 Protection
 200 Hours
 400 Hours
 400 Hours

 Non-Lecture Jours (NLH)
 Protection
 200 Hours
 400 Hours
 400 Hours

 Examination (Pager & Mark, Distribution)
 Examination (Pager & Mark, Distribution)
 Practical Vira Hours Marks
 Practical Vira Hours Marks

 Pager II
 100
 100
 20
 20
 20

 State Till
 100
 100
 120
 20
 20

KEY POINTS

(Theory and Practical).

Next table is Index. All the major tables are indexed.

**Curriculum:** The curriculum is defined as the guideline of the academic content covered by an education system while undergoing a particular course or program. Curriculum has a wider scope which covers the knowledge, attitude, behaviour, manners, performance & skills that are imparted or inculcated in a student. It contains every aspect from objectives to assignments. This is outcome-based approach of the curriculum.

**Graduate attributes** reflect the particular quality and feature or characteristics of an individual, including the knowledge, skills, attitudes and values that are expected to be acquired by a graduate through studies at the higher education institution.

The graduate attributes include capabilities that help strengthen learners' abilities for widening current knowledge base and skills, gaining new knowledge and skills, undertaking future studies, performing well in a chosen career and playing a constructive role as a responsible citizen in the society.

**Program learning Outcomes** deal with the general aspect of graduation for a BSMS program, and the competencies and expertise a graduate will possess after completion of the program. Name of the Programme : Bachelor of Siddha Medicine and Surgery (B.S.M.S.)

As per new MSE, This programme (BSMS) is divided in three Professional years of 1.5 years each, followed by 1 year of internship. I professional BSMS has six courses (Subjects).

## Objectives

**Bachelor of Siddha Medicine and Surgery programme**.- The Bachelor of Siddha education namely, the Bachelor of Siddha Medicine and Surgery (B.S.M.S.) shall produce Graduates, having profound knowledge of Siddha Medicine along with the contemporary advances in the field of Siddha Medicine supplemented with knowledge of scientific and technological advances in modern sciences and technology along with extensive practical training, as an efficient physicians and surgeons for the health care services.

# **Course Code and Name of Course**

## First Professional B.S.M.S.

Sl.	Subject/Course	Subject/Course	Equivalent Terms				
No.	Code						
1.	SIDUG - SATV	Siddha Maruthuva Adippadai	History and Fundamental				
		Thathuvangalum Varalaarum Principles of Siddha Medicine					
2.	SIDUG – TL	Tamil Language					
		(Applicable as per clauses (b) and	(c) of sub-regulation (1) of Regulation				
		4 relating to eligibility for admiss	ion.) /				
	SIDUG – CE	Communicative English (whereve	er applicable)				
3.	SIDUG - UK	Udal Koorugal	Human Anatomy				
4.	SIDUG - UT	Udal Thathuvam	Human Physiology				
5.	SIDUG - UV	Uyir Vedhiyiyal	Biochemistry				
6.	SIDUG - NU	Nunnuyiriyal	Microbiology				
7.	Electives (Minimu	im Three)					

Course code: is an abbreviation of selected alphabets given to the course (subject).

Name of the course: Complete name of the course is indicated in the table in each course.

Next table explains Course learning outcomes (CO) and they are matched with Programme learning outcomes.(PO)

# Table 1- Course learning Outcome and matched Program learning outcomes.

SR1	A1	B1
CO	Course learning Outcome (CO) SIDUG –	Matched program
No	At the end of the course SIDUG –: the student should be able to-	learning outcomes.

SR1: Course learning Outcome are numbered in column SR1.CO<Number> for the SIDUG -: These number will be used in the table 3 in column A3.

A1: Course Learning Outcome (CO):

**Course Learning outcomes** (CO)is a detailed description of, what a student must be able to do at the completion of a course. CO helps the learner to understand the reason for pursuing the course. Learner can visualize the learning (it may be knowledge, Skills or attitude)at the end of the course.

Learning outcome is measurable and involves the structuring of two parts, a verb and an object. The verb phrase describes the intended cognitive process or what the learner is intended to do, and the object phrase describes the knowledge students are expected to acquire or construct.

B1: Program learning Outcomes (POs) matched with Course learning outcomes (CO)

Siddha Maruthuva Arignar (BSMS) is a programme and outcomes for this are explained in earlier section. This column explains CO in column A1 matched with the appropriate PO<number> written in row in front of COs

## Table 2: Contents of the Course-

A2 List of Topics SIDUG –	B2 Term	C2 Marks	D2 Lecture hours	E2 Non-Lecture hours

Table 2 explains contents of course. List of topics and distribution according to term and marks.

A2	B2	C2	D2	E2
List of Topics SIDUG –	Term	Marks	Lecture	Non-Lecture
			hours	hours

A2: List of topics SIDUG -: List of the topics (main and subtopics)those are included in the course.

A2	B2	C2	D2	E2
List of Topics SIDUG –	Term	Marks	Lecture	Non-Lecture
			hours	hours

B2: Term – The course is of three terms of six months each. Topics in A2 are to be covered in three terms. This column indicates topics to be covered as per each term. Indicated by I, II, III.

A2	B2	C2	D2	E2
List of Topics SIDUG –	Term	Marks		

		Lecture	Non-Lecture
		hours	hours

C2: Marks: This column indicates distribution of marks for the topic or group of topics in the course. Useful for considering the weight age of the topic in the course.

Term wise distribution is indicated in column B2 and marks distribution in C2.

A2	B2	C2	D2	E2
List of Topics SIDUG –	Term	Marks	Lecture	Non-Lecture
			hours	hours

D2 and E2 :Lecture and Non Lecture Hours:- Defines the Total number of hours allotted for the course. As per MSE, they are divided in lecture and non-lecture hours.

A2	B2	C2	D2	E2
List of Topics SIDUG –	Term	Marks	Lecture	Non-Lecture
			hours	hours

D 2 **Lecture hours:** Lecture is an exposition of a given subject or discourse on a particular subject delivered before an audience or class. Lecture is commonest method used in the classroom for teaching. Now it is supplemented with A/V aids. Expectations from the lecture are interactive lectures. Interactive teaching method is a teaching process which is conducted through the interaction between the teacher and the learner. It is within the existing learning conditions, aiming to transfer common knowledge, skills, and values to the student.

These can be brief segments within a larger lecture-based class and can include a single or mix of several different Teaching learning and student engaging techniques. Total number of hours required to complete the topic are indicated in the column.

A2	B2	C2	D2	E2
List of Topics SIDUG –	Term	Marks	Lecture	Non-Lecture hours
			hours	

**E2 Non Lecture Hours**:-Practical-Learning means knowledge gained by implementing theory in real-life activities. This way of learning helps students to remember the topic for a long time and also to master it. Practical-learning makes the study more enjoyable, with the highest engagement in the topic.

Learning can be with various ways. Based on objectives like Disseminate knowledge, Develop capability to use ideas, to test ideas, to generate ideas, Facilitate the personal development of students, self-directed learning.

Common methods like Reading, Handouts, Guest lectures, using library and other learning resources, Case studies, Work experience, Projects, Demonstrations, Group working, Simulations, Workshops, Discussion & debates, Essay writing, tutorials, Presentations, compilations, feedback on written work. Some others like Peer assessment, Research projects, Workshops on techniques of creative problem solving. Team based learning like Group working, Action learning, field work. Generating ideas with Lateral thinking, Brainstorming, Mind-mapping, Creative writing, drawing. Others like Problem solving, Experiential learning, Role play, Mentors, Reflective logs and diaries, independent study/ self-directed learning, Work placement, Portfolio development etc.

Activities based as relevance of are expected as a part of learning experience. Time required for these activities along with different newer Teaching learning methods supported by various Audio visual aids can be considered as **non-lecture hours**. These hours are indicated as per topic list in this column.

# Table 3: Learning objectives (Theory)of CourseSIDUG -:

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm	
	session, the students		to know/Nice	Shows how/					
	should be able to)		to know	Knows how/					
				Know					
Topic 1- <7	<b>Copic point</b> >(Lecture:-<	Number>hou	urs, Non lecture<	Number> hours)					

Table 3 Learning objectives of course SIDUG –: contents. This table contains ten columns. This comprehensive table explains Topic and subtopic wise points in the table. Matched lecture and Non-lecture hours explained as per D2 and E2 columns. It also explains learning Objective of the topic, Domain and sub domain as per Blooms Taxonomy, level, appropriate Teaching learning Method, assessment method, type of assessment and Integration for teaching.

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm	
	session, the students		to know/Nice	Shows how/					
	should be able to)		to know	Knows how/					
				Know					
Topic 1- <t< th=""><th><b>`opic point &gt;</b>(Lecture:-&lt;</th><th><number> ho</number></th><th>urs, Non lecture</th><th><number> hours)</number></th><th></th><th></th><th></th><th></th><th></th></t<>	<b>`opic point &gt;</b> (Lecture:-<	<number> ho</number>	urs, Non lecture	<number> hours)</number>					

A3 indicates Course learning outcome (CO): -CO are explained in Column A1. Topic list is explained in column A2. This column A3 explains relation of Topic in list and course outcome denoted corresponding CO number. One topic and Objectives for topic may contribute in one or more than one CO's. They are also denoted in this column.

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration	
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm		
	session, the students		to know/Nice	Shows how/						
	should be able to)		to know	Knows how/						
				Know						
Topic 1- <topic point="">(Lecture:-<number> hours, Non lecture <number> hours)</number></number></topic>										

B3 Learning Objectives: -Learning objectives are clearly written, specific statements of observable learner behaviour or action that can be measured upon completion of an educational activity. It is a description of what the learner must be able to do upon completion of an educational activity. A well-written learning objective outlines the knowledge, skills and/or attitude the learners will gain from the educational activity. One Topic covers one or many learning objectives. They are noted in Column B3. Each objective start with a verb. Before that line in the first cell "At the end of the session, the student should be able to" is common to all the statement.

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm	
	session, the student		to know/Nice	Shows how/					
	should be able to)		to know	Knows how/					
				Know					
Topic 1- <topic point="">(Lecture:-<number> hours, Non lecture <number> hours)</number></number></topic>									

C3 indicates **Domain of learning.** Benjamin Bloom has identified three domains of educational activities. The three domains are Cognitive, psychomotor and affective. Cognitive is for mental skills (Knowledge), Psychomotor is for manual or physical skills (Skills) while Affective is for growth in feelings or emotional areas (Attitude), They are also indicated by KSA (Knowledge, Skills and Attitude). All activities related to teaching and learning are aligned to these domains of learning.

Cognitive domain involves knowledge and the development of intellectual skills. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. There are six major categories. They are in ascending order. Lowest level is Knowledge (Recall), followed by Comprehension, Application. Analysis, Synthesis and Evaluation in the pyramid. They starting from the simplest to the most complex.

Psychomotor domain includes physical movement, coordination, and use of the motor skill areas. Development of these skills requires practice and is measured in terms of speed, precision, procedures, or techniques in execution. The seven major categories listed in order are Perception, Set, Guided response, Mechanism, Complex Overt Response, Adaptation and Origination.

Affective domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. The five major categories listed in order are: Receiving, Responding, Valuing, Organization and Internalizing values (characterization).

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm	
	session, the students		to know/Nice	Shows how/					
	should be able to)		to know	Knows how/					
				Know					
Topic 1- <topic number="" point="">(Lecture:-<number> hours, Non lecture <number> hours)</number></number></topic>									

These are denoted in column C3 e.g., Cognitive/Knowledge.

D3 : Considering the Course outcome, Learning objective, level of learner(UG/PG etc), topicsare classified into Must to know, Desirable to know and Nice to know. This classification is essential to focus depth of the teaching, allotted time and efforts in teaching. It reflects in Teaching learning Methods and assessment. Must know should be covered in depth, Desirable to know as an introduction and Nice to know should be a sensitization.

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration	
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm		
	session, the students		to know/Nice	Shows how/						
	should be able to)		to know	Knows how/						
				Know						
Topic 1- <topic number="" point="">(Lecture:-<number> hours, Non lecture <number> hours)</number></number></topic>										

E3 Levels of competencies in Clinical practice. It is based on Millar's Pyramid. It is divided in four levels. Lower two levels are Know and Know how based on Cognitive. Top two Shows and does for behaviour. Lower three levels are useful in UG. In any topic based on the Domain and importance, Level, Teaching and learning activities as well as Assessment methods are planned. These levels for each objective in topic are noted in Column E3.

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm	
	session, the students		to know/Nice	Shows how/					
	should be able to)		to know	Knows how/					
				Know					
Topic 1- <topic number="" point="">(Lecture:-<number> hours, Non lecture <number> hours)</number></number></topic>									

F3 T - L Methods: - Teaching learning methods. Teaching learning methods are planned based on Topic need, Domain, Importance, Level to be assessed. This column indicates traditional methods like lecture as well as interactive methods.

Lecture method is an educational presentation delivered by an instructor to a group of students with the help of instructional aids and training devices. In lecture method, the teacher orally presents the course material in an organized way to the students. Lectures may contain varying level of student participation, and the students take notes. Lecturing is one of the oldest methods of teaching used by the teachers of higher education.

Lecture method gives more importance to content presentation, where the teacher is active and the students are passive, but the monotony of teaching, can be overcome by various methods of Interactivity and Audio-visual aids. It is fastest and easiest way of large group teaching. Lecture method helps to motivate, clarify doubt, review the understanding by verbal and nonverbal responses.

In lecture, various other methods can be included. A large classroom can be converted to small groups for

**Discussions:** - Leading discussions can be one of the most rewarding, and most challenging, teaching methods. Using discussions as a primary teaching method allows us to stimulate critical thinking. Large group can be converted to small groups and activity can be conducted.

Brainstorming is used as one of the teaching methods. the students participate by responding or presenting views on the topic. This technique encourages new ideas among students.

**Inquiry-Based Learning** starts from a place of questioning. Students may spontaneously ask questions or be prompted to ask questions about a particular topic. They might search to find answers, engage in activities that will help them pursue answers, or work collaboratively in pursuit of answers.

**Problem-based learning** (PBL) is a student-centered approach in which students learn about a subject by working in groups to solve an openended problem. This problem is what drives the motivation and the learning.

Case based learning: - Same as above. A case on clinical practice or any real-life situation.

**Project-Based Learning:** -Project-based learning requires students to spend an extended period of time (e.g., a week) on a single project. Students will complete project with Learning objective and will present in class.

**Team-based learning** (TBL) is a structured form of small-group learning that emphasizes student preparation out of class and application of knowledge in class

**Flipped classroom:** -Flipped classrooms involve asking students to complete the reading, preparation and introductory work at home. Video or presentations are supplied before the class. Then, during class time, the students will ask questions and participate in discussions.

**Blended Learning:-** Blended learning is a mix method. Classroom lecture and technology together. This method relies heavily on technology, with part of the instruction taking place online and part in the classroom via a more traditional approach, similar but different than flipped classroom approach. Various online tools, apps can be added in the classroom activities.

**Edutainment:** - A combination of education and entertainment is helpful in maintaining students' interests, by using various methods of teaching such as videos, Power Point slides, demonstrations, discussions, etc.

**Early Clinical Exposure** (ECE) provides a clinical context and relevance to basic sciences learning. It also facilitates early involvement in the healthcare environment that serves as motivation and reference point for students, leading to their professional growth and development. It can be for healthy individuals or Patients. In a large classroom, it can be achieved by recorded videos, cases.

**Simulation** is also the pedagogical approach of providing students with the opportunity to practice learned skills in real-life situations. Simulationbased learning allows students to apply abstract concepts to active hands-on practice. Practicing with mock or real patients in a dedicated clinical environment such as a clinical skills lab helps students learn to make appropriate decisions at various points within the scenario.

**Role plays**: -Role play is the basis of all dramatic activity. Role playing is a way of working through a situation, a scenario, or a problem by assuming roles and practicing what to say and do in a safe setting. It is effective way of learning cognitive, affective as well as communication.

**Self-directed learning** is the process through which an individual takes responsibility for their learning. This includes assessing the needs and readiness for learning, identifying learning goals, engaging in the learning process and self-evaluation. As a part of learning students are needed to acquire many essential skills by these methods. Many online tools, E learning portals, MOOC's related to syllabus are available. As per importance of topics nice to know topics can be selected for this method.

**Problem solving method:** -Human beings face multi-dimensional problems in their lives, and they try to solve these problems in a particular way in the light of their previously gained knowledge and experiences. In this regard, it is essential for the students to be prepared for future or near future challenges by facing real life, or real like, problems in their learning environment, and finding appropriate solution of these problems. Many similar methods like Critical thinking, creative thinking can be part of this activity.

**Kinesthetic Learning**students perform hands-on physical activities rather than listening to lectures or watching demonstrations. Kinesthetic learning, values movement and creativity, is most commonly used types of instruction. Students are expected to do, make or create something. Poster making, model making, Chart making, Video Clip making. Many such activities can be part of learning.

**Workshops** on few topics for can be good Teaching method. Skills development, communication skills, ethics and many other programme outcomes can be achieved with this method.

**Game-Based Learning**Students love games, game-based learning, which requires students to be problem solvers as they work on quests to accomplish a specific goal. For students, this approach blends targeted learning objectives with the fun of earning points or badges, much like they would in a video game.

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm	
	session, the students		to know/Nice	Shows how/					
	should be able to)		to know	Knows how/					
Know Constant Const									
Topic 1- <topic number="" point="">(Lecture:-<number> hours, Non lecture <number> hours)</number></number></topic>									

G3 Assessments: This column indicates method of assessment for the given Topic. Various types of assessment methods are given as per domain. For assessment of cognitive domain MCQ, extended matching items, SAQ, LAQ, Essay writing, modified essay questions (MEQs), Constructed Response Questions (CRQs), case study, open book test etc. can be conducted.

In class activities like Quiz, Puzzles, Class Presentation, Debate, Word puzzle, Online quiz and online game-based assessment methods etc. Kinesthetic activities like Making of Model, Charts, Posters, conducting interview, Interactions, Presentations, similarly Critical reading papers, Creativity Writing etc. are useful to assess current understanding and giving feedback.

Clinical or practical related video cases, simulated patients, patient management problems, checklists, Objective Structured Clinical examination (OSCE), Objective Structured Practical Examination (OSPE), Mini-Clinical Evaluation Exercise (Mini-CEX), Direct Observation of USER MANUAL, SIDUG I BSMS

Procedural Skills (DOPS), simulation, Clinical work sampling (CWS)can be recorded as formative assessment. Involving activities like student projects, short survey, research projects, can be used. Other Teaching Methods indicated in the column like Problem Based Learning (PBL), Case Based Learning (CBL) etc. can be used as formative assessment with rating scales, checklist and pre decided scoring pattern. Record keeping like compilations, portfolios, log book, trainer's report, self-assessment, peer assessment, and 360-degree evaluation can be scored for few marks as Formative assessment.

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	
Course	Learning Objective	Domain/	Must to	Level	T-L	Assessment	Formative	Te	Integration	
outcome	(At the end of the	subdomain	know/desirable	Does/	method		/summative	rm		
	session, the students		to know/Nice	Shows how/						
	should be able to)		to know	Knows how/						
				Know						
Topic 1- <topic number="" point="">(Lecture:-<number> hours, Non lecture <number> hours)</number></number></topic>										

H3 Formative and summative assessment: Column indicate assessment indicated in G3 should be performed as Formative and summative assessment. Few topics are indicated for formative assessment only. Most of the topics will be for formative as well as summative assessment.

I3 Term wise distribution is again indicated in column.

J3 Integration: - Students learn similar topics in more than one course (subjects). Integration of such topics, concepts, where various subject-based knowledge or aspects of one theme or topic are assimilated to provide the holistic approach. Many departments can come together to provide such holistic experience for similar topic. Horizontal and vertical integration opportunities are indicated in this column.

# Table 4:Learning objectives (Practical) of Course <course code>

	1 1 I	04	H4	14	J4				
Course Learning Objective Domain/ Must to Level	T-L	Assessment	Formative	Te	Integration				
outcome (At the end of the subdomain know/desirable Does/	method		/summative	rm					
session, the students to know/Nice Shows how/									
should be able to) to know Knows how/									
Know									
Topic 1- <topic number="" point="">(Lecture:-<number> hours, Non lecture <number> hours)</number></number></topic>									

Similar to above table 3 for practical

• List of Practical is added to denote the practical.

# Table 5- Non-Lecture Activities Course SIDUG -

Sr No	List non lecture Teaching-Learning methods	No of Activities

Table 5 summaries Non-Lecture Activities. These are indicative and as per the topic need, amongst the multiple methods denoted here and in the objectives table appropriate activities should be chosen.

# Table 6: Assessment Summary:

Assessment is subdivided in A to H points.

# 6 A-Number of Papers and Marks Distribution for First Professional BSMS

				Practical or Clinical Assessment				ent	G
SI. No	Course Subject/Course	Paper s	Theor y	Practic al or clinical	Viv a	Electiv es	I A	Tot al	d Total
1.	Siddha Maruthuva Adippadai Thathuvangalum Varalaarum (History and Fundamental Principles of Siddha Medicine)	1	100	-	30	-	2 0	50	150
2.	Tamil Language (Applicable as per clauses (b) and (c) of sub-regulation (1) of Regulation 4relating to eligibility for admission) / Communicative English (wherever applicable)	1	100	-	30	-	2 0	50	150
3.	Udal Koorugal (Human Anatomy) Paper I & Paper II	2	200	100	20	10 (Set- FA)*	2 0	150	350
4.	Udal Thathuvam (Human Physiology) Paper I & Paper II	2	200	100	20	10 (Set- FB)*	2 0	150	350
5.	Uyir Vedhiyiyal (Biochemistry)	1	100	100	20	10 (Set- FC)*	2 0	150	250
6.	Nunnuyiriyal (Microbiology).	1	100	100	30	-	2 0	150	250
							Gran	d Total	1500

[\*Set: -FA, FB, FC – Sets of Electives for First Professional B.S.M.S]

# 6 B - Scheme of Assessment (formative and Summative)

		<b>Duration of Professional Session</b>					
Sl.No.	Professional session	First Term	Second Term	Third Term			
		(1-6 Months)	(7-12 Months)	(13-18 Months)			
1	First Professional B.S.M.S.	3 PA and First TT	3 PA and Second TT	3 PA and UE			

2	Second Professional B.S.M.S.	3 PA and First TT	3 PA and Second TT	3 PA and UE
3	Third (Final) Professional B.S.M.S.	3 PA and First TT	3 PA and Second TT	3 PA and UE

PA: Periodical Assessment; TT: Term Test; UE: University Examinations Theory i.e. Written by the MCQ, SAQ, LAQ as per MSE and Practical Examination by Practical / Clinical/ Viva.

**Formative assessment** as, it is assessment for learning, various other methods can be used. Considering cognitive, psychomotor and affective domain appropriate method as per column G3, appropriate method should be adopted.

(Refer above explanation of Formative assessment in G3 column)

Formative assessment should be frequent activity after teaching.

Records should be kept and cumulative marks should be forwarded to university as per table

Formative assessment is defined by two terms, Periodic Assessment and term test.

Periodic Assessment and Term Test- In table 6 C method for calculation of internal assessment marks is explained. Various periodic assessment methods are explained in the table 6 D.

# 6 C Calculation method of Internal Assessment Marks (20 marks)]

	Periodical Assessment			ssment	Term Test	Term As	Term Assessment	
	Α	В	C	D	E	F	G	
Term	1 (20)	2 (20)	3 (20)	Average (A+B+C/3) (20)	Theory (MCQ + SAQ + LAQ) & Practical (Converted to 20)	Sub Total	Term Assessment	
First						D+E	D+E/2	
Second						D+E	D+E/2	
Third					Nil	D	D	
Final IA	Final Internal Assessment: Average of three Term Assessment marks as shown in 'G' column							

# 6 D - Evaluation Methods for Periodical Assessment

Sl.	Evaluation Method
No.	
1.	Practical / Clinical Performance
2.	Viva Voce / Multiple Choice Question (MCQ) / Modified Essay Question
	(MEQ)/Structured Questions
3.	Open Book Test (Problem Based)
4.	Summary Writing (Research papers)
5.	Class Presentations
6.	Work Book Maintenance
7.	Problem Based Assignment

8.	Objective Structured Clinical Examination (OSCE), Objective Structured Practical
	Examination (OSPE), Mini Clinical Evaluation exercise (Mini-CEX), Direct Observation
	Procedures (DOP), Case Based Discussion(CBD)
9.	Extra-curricular activities (Social Work, Public Awareness, Surveillance Activities,
	Sports or other activities which may be decided by the department).
10.	Small Project
11.	Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column
	I3.

A detailed list of periodic assessment is given in this table. Choose one activities Indicated in Table 3

- Column G3 as per Indicated I, II or III term in column I3 or any other as per objectives from this table.

Conduct periodic test for 20 marks.

# Term Test - Conduct Theory (100 Marks) [MCQ (20\*1 Marks), SAQ (8\*5), LAQ (4\*10)] and Practical(as per course)/(100 Marks) and convert to 20.

# **6 E Question Paper Pattern**

# I PROFESSIONAL BSMS EXAMINATIONS

# SIDUG –

PAPER-1

Time: 3 HoursMaximum Marks: 100INSTRUCTIONS: All questions compulsory

		Number of	Marks per	Total Marks
		Questions	question	
Q 1	MULTIPLE CHOICE QUESTIONS (MCQ)	20	1	20
Q 2	SHORT ANSWER QUESTIONS (SAQ)	8	5	40
Q 3	LONG ANSWER QUESTIONS (LAQ)	4	10	40
				100

Similar for Paper II (If applicable).

# 6 F Distribution of theory examination

Α	В	С	D		
List of Topics	Term	Marks	Type of Questions		
				"Yes" can be aske	d.
			"No" should not be asked.		sked.
			MCQ	SAQ	LAQ
			(1 Mark)	(5 Marks)	(10 Marks)

Question paper Blue print is indicated as per Term, maximum marks allotted to topic and type of Questions.

A indicate List and name of topic and subtopic

B indicate Term

C indicate maximum marks allotted for topic or group of Topics.

D Distribution of type of question MCQ, SAQ, LAQ to be asked. "Yes" indicate can be asked. "No" indicate should not be asked.

А	В	С
Question	Type of Question	Question Paper Format
Sr. No		
Q1	Multiple choice Questions	1. Topic number
	(MCQ)	2. Topic number
		3. Topic number
	20 Questions	4. Topic number
		5. Topic number
	1 mark each	6. Topic number
		7. Topic number
	All compulsory	8. Topic number
		9. Topic number
		10. Topic number
		11. Topic number
		12. Topic number
		13. Topic number
		14. Topic number
		15. Topic number
		16. Topic number
		17. Topic number
		18. Topic number
		19. Topic number
		20. Topic number
Q2	Short answer Questions	1. Topic number / Topic number
	(SAQ)	2. Topic number / Topic number
	Eight Questions	3. Topic number / Topic number
	5 Marks Each	4. Topic number / Topic number
	All compulsory	5. Topic number / Topic number
		6. Topic number / Topic number
		7. Topic number / Topic number
Q3	Long answer Questions	1. Topic number / Topic number
	(LAQ)	2. Topic number / Topic number
	Four Questions	3. Topic number / Topic number
	10 marks each	4. Topic number / Topic number
	All compulsory	

# 6 G Blue print of paper I & II

6 G - Blue printing of paper: - Based on 6 F should be used for framing question paper.

A indicates Sr. No of the question

B indicates Type of Questions.

C indicates Topic number from which question is to be framed.

All questions should be compulsory.

For Q 1 MCQ 20 questions to be framed based on the topics indicated in column C. Must to know part 15 MCQ, Desirable to know 3 MCQ, Nice to know 2 MCQs.

For Q 2 SAQ 8 questions to be framed based on the topics indicated in column C. 7 Questions from Must to know 1 Question on Desirable to know and no Questions on Nice to know

For LAQ 4 questions to be framed based on the topics indicated in column C All questions on must know. No Questions on Nice to know and Desirable to know.

Structured Questions should be asked for LAQ and a clear demarcation of marks also should be given.

A balance of question assessing Knowledge, Comprehension, Application and Analysis should be maintained.

# 6 H Distribution of Practical Exam

SN	Heads	Marks
1	Practical (Total Marks 100)	
	Heading 1	
	Heading 2	
	Heading 3	
	Heading 4	
2	Viva Voce	
3	Internal	
4	Electives (if applicable))	
	Total Marks	

6 H indicates Marks Distribution as per various heads. Practical, Viva. Internal assessment marks (IA) and Electives (If Applicable).

## 7. References books/ Resources

Books and Resources for the course/ Subject are provided in this point.

# Implementation

- Select a topic as per term
- Read the objectives
- Think of Domain
- Decide lecture plan and prepare material A/V aids(PPT, Charts etc)

- Decide non lecture activities to be conducted. Prepare resources (Case, problem etc)
- Decide assessment method (formative) and prepare material if required (e.g. Quiz, puzzle, etc)
- Make lesson plan. (Template next page)
- Conduct session/practical

#### LESSON PLAN TEMPLATE

Name of	Name of College:					
Name of	Department (s)					
Name of	Course Acad	emic Year	Batch –			
Learning	Objectives:					
Instructio	nal Method (Circle as appro	priate) -				
Lecture /	Seminar /Tutorial / Bedside C	Clinic / OPD Session / Con	nmunity Visit / Hospital visit, any of			
Duration	- LH-	NLH				
Time	Activity Description	Resources/ A-V Aids	Assessment Method / s			

List of Learning Resources : (Textbook, e – resources, other) Referenced according to Vancouver style

# **Contributions: Curriculum Committee**



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(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

# Siddha Maruthuva Adippadai Thathuvangalum Varalaarum

(History and Fundamental Principles of Siddha Medicine)



(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

**Tamil Language** 



(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

**Communicative English** 



(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

# **Udal Koorugal**

(Human Anatomy)



(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

## **Udal Thathuvam**

(Human Physiology)



(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

Uyir Vedhiyiyal

(Biochemistry)



(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

Nunnuyiriyal

(Microbiology).

