

Revised Rachana Sharir
6-Days CME for Teachers Module

UNIT-1: Areas of Research in Rachana Sharir

Duration: 01 hr.30 min.

Categories: Microteaching Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- Functional and Clinical relevance of Nadi, Bandha, Mudra and Chakra in 21st century in context to Manovaha strotas.
- Historical development of modern anatomy in context to Rachana Sharir.
- Clinical and surgical anatomy described in ancient Indian literature.
- Exploring Anatomical principles in practice.(Sports Injuries, Yoga, Kinesiology, physiotherapy, martial art forms)
- Techniques of advancement in dissection.

ADVANCE

- To explore the hidden thoughts, Using Ayurvedic texts along with clinical and surgical knowledge; Quality Research is needed to end the controversy structure like Kloma, Tila etc.
- Application of Rachana Sharir knowledge in clinical diagnosis.
- Research on epigenetic area, organogenesis, Arishta lakshana.

ACTIVITY SESSION (Group Discussion)

- Interactive session topics will be distributed to each group by the Resource person.
- Each group will present learning objectives of topics, which will be redefined by the resource person.
- Each group will propose methods to achieve respective learning objectives of topic, which will be designed by the resource person.

Material for activity:

A sheet with listed possible keywords specific to topics . The participants will make a network diagram as 'study design' pertaining to their identified topics.

Research session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT-2: How to Teach Garbha Sharir from Ayurveda perspective?

Duration: 01 hr.30min

Categories: Microteaching Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- Role of Garbhini charya in nourishment of the developing fetus –Ayurveda fundamentals.
- Understanding Atulyagotriya Sharir in context of genetics.
- Correlative Study of definition of Garbha and Embryo/Fetus.
- Factors responsible for formation & Development of Garbha (Embryo).
- Comparative study of Beeja – Beejabhaga- Beejbhagavayava in respect of Theory of Hereditary and its applied aspects like Relevance of Atulyagotriya Sharir to understand the genetic disorders.
- Principal of Genetics, chromosomal aberration.
- Comparative study of Anga pratyanga utpatti with Organogenesis.
- The etiological factors and Comparative study of Garbha vikruti and Teratology.
- Role of Panchamahabhuta in development of Fetus (germinal layers etc.)
- Study of Dauhridya in respect of Garbha vikruti (Teratology).
- Critical analysis Masa-numansik Garbh Vridhi.
- Prenatal diagnostic study.

ACTIVITY SESSION

- Case discussion by resource person on presented topic.
- Visiting Embryology museum to get more exposure.
- Making Working Models and Charts to improve the skill.

ADVANCED

- Latest lists of software being used for teaching Embryology.
- **Material for activity:** A copy of study material should be given to all the participants.
The participants will be divided into groups and each group will share one teratological condition and explain Ayurveda concept behind its development.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT-3: Advance Teaching Modules in Rachana Sharir

Duration: 01 hr.30 min

Categories: Microteaching Session of Rachana Sharir.

Course Contents:

INTERACTIVE SESSION

BASIC

- Module preparation focusing on applied aspect of Rachana Sharir.
- Teaching methodology as described in Ayurveda literature.g., Use of analogy for picturisation of structures as presented in Ayurveda classics. E.g., Gosthan akara for Netra.
- Using technology to meet the challenges in teaching of different

concepts of Rachana sharir.

ADVANCE

- Virtual dissection table & benefit of Virtual dissection in today's era.
- 3D anatomy atlas:- ADAMS, ios.
- Digital library: e- books ,e-atlas.
- How to create e - dissection modules.
- How to create 3D images and GIF images
- Use of audio- visual tools for better comprehension of the subject

ACTIVITY SESSION

- Interactive session : topics will distributed to each group by the Resource person.
- Each group will present learning objectives of topics, which will be redefined by the resource person.
- Each group will propose methods to achieve respective learning objectives of topic, which will be designed by the resource person. Each group will prepare modules and demonstrate it.
- Delegates will be given free hand to explore and practically experience various features present in the virtual dissection lab.

The participants can be instructed to perform virtual dissection through software.

Material for activity: A sheet will provided to the participants with listed possible keywords specific to topics. The participants will make a network diagram as study design pertaining to their identified topics.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT-4:Plastination Technique

Duration: 03 hr.

Categories : Practical Session of Rachana Sharir.

Course Contents :

INTERACTIVE SESSION

BASIC

- Introduction to concept of plastination and castination:Definition, Detail procedure and different techniques-In form of Practical demonstration.
- Detail procedure and training for Plastination:-
Whole body or Organ Plastination.
Sheet Plastination.
Luminal Cast Plastination.

ADVANCE

- Using new dimensions of teaching aspects and museum

development.

- Preparation of Soft tissue specimen and Models using current technology like Plastination, Lumen casting etc.

ACTIVITY SESSION(Group Discussion)

- Hands-on training on preparation of a silicon lung cast (human/goat).
- Interactive session topics will be discussed.

Material for activity: Video should be given to all the participants.

UNIT-5: Concept of Srotas Sharir

Duration: 01 hr. 30 min

Categories :Microteaching Session of Rachana Sharir.

Course Contents :

INTERACTIVE SESSION

BASIC

- Correlative Study of Srotas Sharir and Vascular system of body.
- Understanding clinical approach of Srotas Sharir.
- Scientific Concepts of Manovaha Srotas, Sanghyavaha Srotas, and Agyavaha srotas in the present era.
- Comparative anatomical Study of Sira,Dhamni,&Srotas- Number,Formation, sites.
- Significance of Sira,Dhamni in Applied Sharir.
- Anatomical study with Site Determination of Vedhya and Avedhya Sira.
- More emphasis on moolsthan & Srotodushti.

ADVANCE

- Concept and Relevance of various site of Sira vedhan in different pathological conditions in respect of **Venesection**.
- Demonstration of variety of tool and techniques in clinical practices.
- Anatomical Changes in various Srotodushti.
- Interpretation of Srotas Sharir with its appropriate related system and applicability while treating the patients.

ACTIVITY SESSION

- Interactive session topics will distributed to each group by the Resource person.
- Each group will present learning objectives of topics, which will be redefined by the resource person.
- Demonstration of different sira vedh sites on living body surface/ cadaver surface.

Material for activity: activity will be conducted in dissection hall, simulation lab and on virtual dissection table.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT-6:EmbalmingTechnique And Specimen Mounting.

Duration:01 hr.30 min

Categories: Microteaching Session & Practical of Rachana Sharir.

Course Contents :

INTERACTIVE SESSION

- Cadaveric Oath.
- Various techniques of preservation of cadaver and practical demonstration. (Arterial, Cavity, Hypodermic and surface embalming).
- Techniques of Specimen preparation –selection of specimen,under water dissection, Drying and painting, Mounting and preservation.
- Introduction to the advances in the techniques of preservation in 21th century.
- Mummification – ancient and modern technique.
- Ethics of Dissection hall and museum.
- Equipment / Instruments regarding anthropometry.

ACTIVITY SESSION (Group Discussion)

- Hands-on training on specimen mounting and preservation.
- Bone maceration process.
- After discussing the topic of the session in each group, give their suggestions in writing to the resource person.

Material for activity: A copy of study material should be given to all the participants.

UNIT-7: Craniotomy and Dissection of Head and Neck.

Duration: 03 hr.

Categories: Practical Session of Rachana Sharir.

Course Contents:

INTERACTIVE SESSION

BASIC

- Practical demonstration of craniotomy in the dissection hall. Method & application:-
Bifrontal craniotomy, Supraorbital, Retrosigmoidal, Orbitozygomatic, Translabyrinthine.
- Practical demonstration of – Method & Application:- focusing on the meningeal layers, cranial nerves demonstration, venous drainage and blood supply of the brain.
- Detailed demonstration of human brain: external features of every part, ventricular system and nuclei of brain (basal ganglia etc.) via cross-sections.
- Demonstration of neck triangles and its contents with applied aspects.

ACTIVITY SESSION (Group Discussion)

- Hands-on training on use of oscillatory / rotatory machines for bone cutting.
- Practicing dissection by the participants.
- Demonstration on virtual dissection table (Subject to availability) with quiz session .

ADVANCE

- Demonstration of ward procedures i.e. Tracheostomy, intubation method on Simulator (Subject to availability)
Material for activity: Dissection video should be given to all the participants.

Research Session

After each presentation each group prepare two research questions with probable hypothesis.

UNIT-8: Practical Relevance of Marma Sharir

Duration: 01 hr. 30 min

Categories: Microteaching Session of Rachana Sharir.

Course Contents:

INTERACTIVE SESSION

BASIC

- Definition, Total numbers, Classifications, Types.
- Determining the location of Marma.
- Knowledge of Marma abhighata and Marma Viddha lakshanas with its significance in surgery and trauma with modern approaches.
- Concept of Marma in purview of sukshma sharir (Nadi, Chakra).
- Relevance of Marma Sharir by exploring the examples in ancient Hindu mythology, daily life practices, texts, Martial arts, Yogasan and ancient warfare techniques (Kalari Payattu, Gataka etc.).

ADVANCE

- Understanding the Marma science in relation to the Vermam therapy, Acupuncture, Acupressure – analogy and dissimilarities.
- Assessment and demonstration of different tools for pain pressure threshold i.e Pressure Algometer.
- Marma therapy a future of noninvasive treatment module.
- Demostration of different stimulation Techniques used in marma therapy.
- Marma points involved in different postures of asana and Importance of Marma in Sports injury.

ACTIVITY SESSION (Group Discussion)

- Practical demonstration of the Marma site on human cadaver/virtual dissection table and the anatomical structure at that particular point.
- Different stimulation Techniques used in marma therapy-Hands on training.
- Window dissectional exploration of some marma.
- Practical demonstration of marma therapy –A case presentation.
- Discussion over removal of irrelevant marma in respect of the present era.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT-9: Typical Dissection of Abdomen.

Duration: 01hr.30 min

Categories : Microteaching Session & Practical of Rachana Sharir.

Course Contents :

INTERACTIVE SESSION

BASIC

- Demonstration of layer Wise dissection on a cadaver focusing on: Explanation of importance of various Incisions.
- Some special methods of dissection as per structural significance.
- In-vivo study of organs of abdominal and pelvic cavity to understand their anatomical relations as per modern and Ayurveda perspective.(Amashaya location- Nabhi- Sthanantara Madhya, Garbhashya located Pitta- Pakwashaya Madhya).
- Various applied approaches used in specific clinical conditions.

ACTIVITY SESSION

Hands-on training -use of specific tools for window dissection. Demonstration on virtual dissection table (Subject to availability) with quiz session.

ADVANCE

- Demonstration of ward procedures i.e Tracheostomy, intubation method on Simulator (Subject to availability).
- Paper craft activity to visualization the layers of abdomen.

UNIT-10: Concept of Kala Sharir and Twacha Sharir

Duration: 01 hr. 30 min

Categories: Microteaching Session of Rachana Sharir.

Course Contents:

INTERACTIVE SESSION

BASIC

- Definition, General Features of Kala, Types.
- Analogical Significance of Kala.
- Definition, General Features of Twacha Types, Determining the site of Twacha.
- Exploration of concept of Brihi praman and its applied aspect for assessment of thickness among various layer of twacha.
- Exploration of concept of roga adhithan in various layer of twacha.

ACTIVITY SESSION

- Paper craft activity to visualization the Analogical relevance of Kala.
- Participants will be divided in groups by the Resource Person:- Each group will elucidate the knowledge of Twacha with clinical observations on various skin diseases.
- Group discussion on practical implication of Twacha Sharir & Kala Sharir and sharing of personal clinical experiences.

ADVANCE

- Window dissection of Kala and Twacha.
- Measurement of Twak with modern tools.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT-11: Fetal Dissection and Mounting.

Duration: 01hr.30 min.

Categories: Practical Session of Rachana Sharir.

Course Contents:

INTERACTIVE SESSION

- Techniques of Dissection and demonstration of organogenesis.
- Techniques of Specimen preparation –Selection of specimen, drying,

painting, mounting and preservation.

- Demonstration of fetal specimen with Teratological Aspect.E.g., Hydrocephaly.
- Group Discussion.

ACTIVITY SESSION

- Participants will explore the differences of Foetal Dissection to adult body to understand the process of growth and development.

UNIT 12– Dehadan Procedure

Duration: 01 hr. 30 Min.

Categories: Microteaching Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- How to get registered in state anatomy act for taking body as Donation.
- SOPs for body donation program.(technicalities & legalities).
- Need of Dehadan movement its methods of campaigning,Precautions, Maintenance of records, and Benefits.
- Awareness about body bequeath .

ADVANCE

- Anatomy act – details.

ACTIVITY SESSION (Group Discussion)

- Each delegate can share their experiences and difficulties they faced during the body donation process.
- Mock drill of body donation program.
- Group Discussion over legal issues related to dehdan.
- Interactive session topics will distributed to each group by the resource person.
- After discussing the topic of the session in each group, give their suggestions in writing to the resource person.
- Making of pamphlets for body donation programme.

Material for activity: A copy of study material should be given to all the participants.

UNIT 13– Concept of Granthi Sharir

Duration: 01 Hour 30 Min.

Categories: Microteaching Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- Concept in Ayurveda of **granthi sharir**.
- Comparative study with modern anatomical structures with applied aspect.
- Histological demonstration of different glands.
- Demonstration on cadaver and virtual dissection table.

ACTIVITY SESSION

ADVANCE

- Surface marking of glands.
- Window Dissection of some glands.
- The participants can be invited to make a Presentation of the comparative-analysis through audio- visual aids or without it.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT 14-Histology

Duration 01hr.30 min

Categories: Practical Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- Procedure for making Histology slides.
- Demonstration of Histology slides.

ACTIVITY SESSION

- Interactive session topics will be discussed.
- Material for activity: Video and Study material should be given to all the participants.

ADVANCE

- Preparation of Slides – Preparation of common fixatives, Making paraffin blocks and section cutting & Mounting, Preparation of staining, paraffin sections with stain, block making & sectioning, Freezing microtome and cryostat.
- Hand training for Histology slide preparation.

UNIT 15–Comparative Consideration of Sandhi Sharir

Duration: 01 Hour 30 Min.

Categories: Microteaching Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- Ayurvedic concept of different joints with clinical importance.
- Scientific study of Arthrology and body kinesiology.
- Demonstration of range of motion in joints in relation to Yogaasana.
- Demonstration of tools used for ROM.

ACTIVITY SESSION

- Delegates will be divided into groups and each group will explain kinematics of any one joint and muscles involved as per Ayurveda and Modern anatomy practically with help of bones.

ADVANCE

- Demonstration of tools used for ROM-A Hands on training.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT 16– Imaging Technique’s principles (Radiological anatomy)

Duration: 01 hr. 30 min

Categories: Microteaching and practical Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- Radiology-Definition, Preparation, procedure.

- Readings of plain and contrast aspect of X-rays, USG, Angiography, C.T. Scans, MRI.

ACTIVITY SESSION

- Observation of MRI, C T Scan, USG procedures, Colour Doppler etc.

ADVANCE

- Practically evaluating few clinical cases via X-rays, USG, MRI, C.T. Scans and understanding diagnosis.
- Hands on training on virtual dissection table (Subject to availability)- Identification of normal and abnormal MRI and CT Plates with gross tissue.

Material for activity: Video and Study material should be given to all the participants.

UNIT 17–Applications of Ayurveda Rachana Sharir

Duration: 01 hr.30 min

Categories: Microteaching Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BSIC

- Brief overview of clinical application of all the concepts of Rachana Sharir.
- Importance of Rachana Sharir and its applications while treating the Patient with respect to Dagdha, Siravyadha, Agnikarma etc. in context of Marma.
- Sandhi Vimochana, Asthi Bhagna, Bandha techniques.
- **Surface anatomy and land marking of all regions of body.**
- Importance of surface anatomy in surgical procedures.

ADVANCE

- Understanding the kinesiology of Yoga and its practical application.
- Understanding Sandhi Sharir, Pramana Sharir, its related pathologies and application of this knowledge of kinematics to Panchkarma instruments.

ACTIVITY SESSION

- Group discussion: Each delegate can share their any special clinical experience based on Rachana and give their idea of practical application of concepts of Sharir.
- The procedures can be shown to the participants through audio- visual aid
- Practical Demonstration.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis.

UNIT 18- Concept of Praman Sharir

Duration: 01 hr. 30 min

Categories: Microteaching Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- Importance of Sankhya Sharir and Praman Sharir.
- Assessment of Sankhya and Praman Sharir with respect to various Samhita and to critically analysis.
- Assessment of Sankhya Sharir with respect to Modern Numerology of human parts and to critically analyze the differences.
- Applied aspect of Pramana (Standardisation of Pramana).

ACTIVITY SESSION

ADVANCE

- Anguli Pramana in relation with Anthropometric measurement.
- Interactive session topics will distributed to each group by the resource person.
- After discussing the topic of the session in each group, give their suggestions in writing to the resource person.
- Importance of Sama Pramana sharir, ayama, vistara and their prognostic value .
- Importance of Survey study in the topic of Pramana Sharir.
- Each participant will present a comparative data on any particular topic of Sankhya Sharir.

Material for activity: A copy of study material should be given to all the participants Sharir with conclusive accepted enumeration asper his/her views on a sheet of paper.

Research Session

- After each presentation each group prepare two research questions with probable hypothesis

UNIT 19- 21-Dissection

Duration: 4hr.30min.

Categories: Microteaching and practical Session of Rachana Sharir

Course Contents:

- Demonstration of layer wise dissection on a cadaver focusing on:
- Explanation of importance of various Incisions.
- Some special methods of dissection as per structural significance.
- In-vivo study of parts (neurovascular bundle, muscles, triangles etc.) to understand their anatomical relations.
- Anatomical exploration of the Marma points of respective region.
 - Lumber puncture demonstration.
 - Applied aspect region wise.
 - **Dissection of Spinal Cord.**

UNIT 22-Topic: Tantra Sharir

Duration: 01hr. 30 min

Categories: Microteaching Session of Rachana Sharir

Course Contents:

INTERACTIVE SESSION

BASIC

- Definition, division structure and its applied aspects.
- Study of Location & Anatomical structure of Ida, Pingala and Sushumna nadi.
- Scientific exploration and significance of Shadchakra in Yoga.

ADVANCE

- Clinical Importance aspect of Shadchakra and nadi.

ACTIVITY SESSION (GROUP DISCUSSION)

- Interactive session topics will distributed to each group by the resource person.
- After discussing the topic of the session in each group, give their suggestions in writing to the resource person.
- Sheet plastination of Nerve Plexus etc.
- **Material for activity:** A copy of study material should be given to all the participants.

UNIT 23 - Pre and Post training assessment

Duration: 1 hr.

- Assessment and Feedback forms may be given to participants before the commencement of sessions, so that they fill the forms at the end of each session/day and put them in sealed envelopes.

Total Duration of Hours 36 Hours + 01Hour

- 1. Microteaching Session 13:30 hours**
- 2. Research area in Rachana Sharir 03 hour**
- 3. Practical Session 19:30hours**
- 4. Pre and Post Training assessment 01 hour**

- **Evaluation can be planned in four stages-**
- **Reaction of participants:** A survey preferably online can be planned and submitted by participants. Questions will include reactions related to the CME of the participant. Qualitative and Quantitative questions can be planned based on the session.
- **Learning:** - Post-test: Similar to Pre-test, quiz, or presentation from the participant. This will be an opportunity to know about the conducted program as well as the knowledge and skills gained by participants.

- **Behavior:** - A report of the change in knowledge, skills, and practice to teaching will be reported by the participants within three months after completion of CME.
- **Benefits:** - Participants will share a detailed report related to the benefits due to CME related to knowledge, Skills and behavior/practice. What is implemented in the teaching? What was the reaction of students, Peers and Students? Remarks of the participant implementing change. Any support difficulties noted. What else can be added in CME?