COURSE CURRICULUM FOR THIRD PROFESSIONAL BAMS
(PRESCRIBED BY NCISM)

Shalya Tantra
(General Surgery)

(SUBJECT CODE : AYUG-ST)

(Applicable from 2021-22 batch, from the academic year 2024-25 onwards for 5 batches or until further notification by NCISM, whichever is earlier)

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BOARD OF AYURVEDA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110026

NCISM

III Professional Ayurvedacharya
(BAMS)
Subject Code : AYUG-ST

Shalya Tantra
(General Surgery)

Summary

Total number of Teaching hours: 375			
Lecture (LH) - Theory		**125**	**125(LH)**
Paper I	60		
Paper II	65		
Non-Lecture (NLHT)		**58**	**250(NLH)**
Paper I	20		
Paper II	38		
Non-Lecture (NLHP)		**192**	
Paper I	100		
Paper II	92		

Examination (Papers & Mark Distribution)					
Item	**Theory Component Marks**	**Practical Component Marks**			
		Practical	**Viva**	**Elective**	**IA**
Paper I	100	100	70	-	30
Paper II	100				
Sub-Total	200	200			
Total marks	400				

Important Note :- The User Manual III BAMS is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual III before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic. In case of difficulty and questions regarding curriculum write to **syllabus24ayu@ncismindia.org**

PREFACE

Shalya Tantra, the ancient Indian science of surgery, holds a distinguished place in Ayurveda due to its rich tradition of surgical excellence and innovation. Rooted in classical texts like Sushruta Samhita, this discipline emphasizes both fundamental principles and evolving surgical advancements. The undergraduate curriculum in Shalya Tantra is designed to provide students with a comprehensive understanding of surgical interventions, integrating traditional Ayurvedic techniques with contemporary surgical practices. This structured approach ensures that students develop the knowledge and skills necessary to diagnose and manage various surgical conditions effectively.

The syllabus encompasses a wide range of topics, including surgical anatomy, physiology, diagnostic methods, pre- and post-operative care, and therapeutic interventions for conditions such as anorectal disorders, abdominal surgery, orthopedic procedures, and plastic surgery. Additionally, emphasis is placed on wound management, tissue repair, and Ayurvedic pharmacology relevant to surgical practice. To enhance competency, the course integrates lecture-based learning with practical demonstrations, case studies, and group discussions. Students also receive hands-on training using simulators, ensuring they gain real-world surgical skills while adhering to evidence-based practice and research methodologies.

In the third professional year, Shalya Tantra plays a pivotal role in shaping a student's clinical acumen and surgical expertise. This stage bridges the gap between theoretical knowledge and practical application, preparing students to approach surgical conditions holistically. The integration of modern teaching-learning (TL) methods such as problem-based learning (PBL), clinical simulations, and interactive case discussions further refines their diagnostic and decision-making abilities. By fostering innovation and research orientation, the curriculum ensures that future Ayurvedic surgeons are well-equipped to uphold the legacy of Shalya Tantra while adapting to contemporary healthcare advancements

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Course Code and Name of Course

Course code	Name of Course
AYUG-ST	Shalya Tantra

Table 1 : Course learning outcomes and mapped PO

SR1 CO No	A1 Course learning Outcomes (CO) AYUG-ST At the end of the course AYUG-ST, the students should be able to-	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Apply knowledge, critical thinking, and analytical skills for diagnosis and management of Shalya Tantra conditions with relevant contemporary science.	PO1,PO2
CO2	Demonstrate the common surgical and parasurgical procedures competently	PO4
CO3	Demonstrate adequacy of patient care through effective communication and interpersonal skills.	PO8
CO4	Promote awareness of Ayurvedic surgical practices within the community, advocating for healthcare policies that integrate traditional and modern surgical practices	PO5,PO6,PO7,PO8,PO9
CO5	Select, and apply appropriate methods /procedures and resources in patient management related to computing technical tools with an understanding of the limitations of Ayurveda and modern medicine.	PO2,PO3,PO4
CO6	Recognize surgical emergencies and trauma cases, coordinate resuscitative measures and manage accordingly or by referral for expert care at the optimum time.	PO5,PO9
CO7	Demonstrate professionalism with high ethical standards, imbibing the leadership quality, and be committed to continuous improvement of skills and knowledge in the field of Shalya Tantra research.	PO3,PO7,PO9

Table 2 : Contents of Course

Paper 1 (Fundamentals of Shalya Tantra)						
Sr. No	**A2 List of Topics**	**B2 Term**	**C2 Marks**	**D2 Lecture hours**	**E2 Non-Lecture hours Theory**	**E2 Non-Lecture hours Practical**
1	**Introduction to Shalya Tantra (Introduction to development of surgery)** 1. Definition of Shalya, Shalya Tantra and its Importance. 2. Chronological development of surgery from ancient to present era. 3. General scheme of surgical case taking. 4. Special signs and symptoms pertaining to surgery.	1	15	1	1	4
2	**Yantra and Shastra (Blunt and sharp instruments)** 1. Yantra - Nirukti, Prakara, Guna, Prayog, Dosha, Karma, Upayantra and Relevant modern instruments. 2. Shastra - Nirukti, Prakara, Guna, Prayog, Dosha, Karma, Anushastra and Relevant modern instruments. 3. Demonstration (Comparison and classification with modern instruments)	1		2	0	2
3	**Nirjantukarana (Sterilization)** 1. Sterilization – Methods and Types. 2. Knowledge about Vranitagara. 3. Aseptic techniques, Sterilization and Disinfection of Surgical instruments, OT sterilization. 4. Hands on training - Hand washing techniques, Donning of Gloves and Gown.	1		1	1	4
4	**Sangyaharana (Anaesthesia)** 1. Sthaniya Sangyaharana (Local anaesthesia) – Medicines, Techniques, Indications, Contraindications, Complications and Management. 2. Kshetriya and Samanya Sangyaharana (Regional and General anaesthesia) -	1		2	2	4

	Medicines, Techniques, Indications, Contraindications, Complications and Management. 3. Principles of preoperative assessment. 4. Demonstration/Hands on Training - CPR. 5. Demonstration/Hands on Training - maintenance of an airway / endotracheal intubation in a mannequin. 6. Principles of safe General Surgery and Surgical Ethics.					
5	**Trividha Karma (Pre, Operative and Post Operative care)** 1. Trividha Karma – Purva Karma (in relation to instruments, patient and procedure), Pradhana Karma – Ashtavidha Shastra Karma (Surgical/Parasurgical procedures), Paschat Karma – Post operative care of patient. 2. Steps to obtain informed consent for a procedure in a patient/simulated environment. 3. Observe common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures.	1		1	1	2
6	**Shastra Karma (Operative procedure)** 1. Ashtavidha Shastra Karma - Nirukti, Yogya, Ayogya, Prakara with modern correlations of Chhedan, Bhedan and Lekhan. 2. Ashtavidha Shastra Karma – Nirukti, Yogya, Ayogya, Prakara with modern correlations of Eshana, Aaharan and Visravan. 3. Ashtavidha Shastra Karma – Nirukti, Yogya, Ayogya, Prakara with modern correlations of Vedhan and Seevan. 4. Hands on training on Prathamopachara.(First Aid) 5. Demonstration of Chhedan (Excision), Bhedan (Incision), Lekhan (Scraping) on patient/simulator. 6. Demonstration of Vedhan and Visravan (Paracentesis of Ascitic fluid, Hydrocele-Tapping, Pleural effusion-Thoracocentesis) on the patient/simulator.	1		3	0	10

	7. Demonstration of Aharan and Eshan (Extraction and Probing) on the patient/simulator. 8. Demonstration of Seevan (Suturing and Knots) and minor surgical procedures on the patient/simulator.					
7	**Yogya (Experimental Surgical Training)** 1. Importance of Simulation-based teaching in surgical practice (Yogya Vidhi). 2. Perform Basic Surgical Skills - Hands on training on Simulators with relevant modern techniques. 3. IV canulation, IM/IV/Subcutaneous/Intradermal Injection. 4. Ryle's tube and Drains insertion. 5. Urinary catheterization.	1		1	0	8
8	**Marma (Vital points)** 1. Marma – Nirukti, Prakara and Individual Marma Viddha Lakshanas. 2. Marmaghata Chikitsa and its surgical importance. 3. Marma identification and manipulation techniques in musculoskeletal disorders (Avabahuka-Frozen shoulder, Snayugata Vata-Tennis Elbow, Gridhrasi-Sciatica, Cervical Spondylosis, etc.) and Sports Injuries.	1	5	2	0	2
9	**Kshara Karma** 1. Kshara and Kshara Karma - Nirukti, Pradhanata, Guna, Dosha, Karma, Prakara, Yogya, Ayogya, Vidhi, Upadrava and Chikitsa. 2. Clinical application of Kshara Sutra, Pratisaraneeya Kshara, Kshara Taila, Kshara Varti and Ksharodaka in different surgical conditions. 3. Video demonstration of Kshara, Kshara Sutra – Preparation and Method of application. 4. Demonstration of handling of patient with Kshara Sutra changing. 5. Demonstration and hands on training of Ksharodaka, Kshara Taila, Kshara Varti, Kshara Pichu in Dushtavrana.	1	15	2	2	4

	6. Demonstration and hands on training of Kshara Karma in Anorectal disorders. (Arsha, Bhagandara, Nadivrana etc.)					
10	**Agnikarma** 1. Agnikarma - Mahatva, Upakarana, Vidhi, Akrutibheda, Yogya, Ayogya and Upadrava Chikitsa. 2. Dhumopahat & Ushna Vatatap Dagdha Lakshan and Chikitsa. Contemporary techniques and tools of Agnikarma. 3. Hands on experience of Agnikarma in the Pain management of any one disease (Gridhrasi, Avabahuka etc.). 4. Hands on experience of Agnikarma as disease modifying management of any one surgical disease (Arsha, Charmakeel etc.).	1		2	0	4
11	**Raktamokshana** 1. Raktamokshana - Mahatva, Prakara. Siravedha - Yogya, Ayogya, Vidhi, Upadrava and Chikitsa. 2. Pracchanna, Shringa, Alabu - Yogya, Ayogya, Vidhi, Upadrava and Chikitsa. 3. Jaloukavacharana – Yogya, Ayogya, Vidhi, Upadrava and Chikitsa. 4. Hands on experience of Siravedha as disease modifying management of any one surgical disease (Grudhrasi, Uttan Vatarakta etc.). 5. Hands on experience of Alabu as disease modifying management of any one surgical disease (Katigraha, Manya Graha etc.). 6. Hands on experience of Jaloukavacharana (Leech Therapy) as disease modifying management of any one surgical disease (Vidradhi, Dushtavrana, Koth etc.).	1		3	0	6
12	**Bandha Vidhi** 1. Bandha Vidhi – Prayojana, Dravya (Pichu, Plota, Kavalika and Vikeshika), Yogya, Ayogya, Prakara and Upadrava. 2. Hands on training on Simulator with relevant modern techniques of Bandaging. 3. Brief knowledge of Splints (Ayurveda and Modern). 4. Transportation of injured patient (Double	1	6	1	1	4

	Human Crutch, Fireman's Lift, Two-handed seat etc.) and recovery position.					
13	**Pranashta Shalya** 1. Pranashta Shalya and Nirharana Upaya (Identification and Principles of management). 2. Heimlich Maneuver- Hands on training (Choking).	1		1	0	2
14	**Fluid, Electrolyte, Acid Base Balance and Nutrition in surgical practice** 1. Introduction to Physiology of Fluids and Electrolytes. 2. Dehydration and Over hydration. 3. Specific electrolyte loss, Acidosis, Alkalosis, Symptomatology and Management. 4. Parenteral Nutrition. 5. Calculations and Selections of fluids in various conditions like Dehydration, Shock, Burns etc. 6. Acid Base Balance in various conditions like perforation, vomiting etc.	1	5	3	1	4
15	**Rakta** 1. Rakta Mahatva and Rakta - Chaturtha Dosha. 2. Raktasrava - Prakara and Lakshana. Haemorrhage and its management. 3. Raktastambhana - Haemostasis. 4. Raktadhan (Blood Transfusion) - Blood groups, Compatibility, Indications, Contraindications and Complications with Management. Component Therapy.	1		2	2	0
16	**Life Saving and Emergency Medicines in surgical practice (Prana Rakshaka and Atyayika Dravya)** 1. Jeevanurodhak Dravya (Antibiotics)- Classification, Indications, Contraindications and Dose**.** 2. Vedanaprashamana and Shothaprashamana Dravya (Analgesics and Anti-inflammatory Drugs) - Classification, Indications, Contraindications and Dose.	1	4	3	0	0

	3. Atyayik Dravya (Emergency Drugs) - Atropine, Adrenaline, Dopamine Mephentine Hydrochloride, Hydrocortisone, Dexamethasone, Antiemetic drugs - Indications, Contraindications and Dose in surgical practice.					
17	**Naidanik Vidhi (Diagnostic techniques)** 1. Chhaya Vikiran (X-Ray), Avayava Pariksha (Ultrasonography, CAT Scan, MRI) – Principles, Method, Indications and Contraindications. 2. Kosha Pariksha (Biopsy/Cytological study) - Principles, Method, Indications and Contraindications. 3. Chhaya Vikiran (X-rays) of Chest, Abdomen, Urology and Musculoskeletal diseases. (Interpretation) 4. Demonstration of CT, MRI of Chest, Abdomen, Urology, Bones and Joints. 5. Different types of Biopsy. (Hands-on training)	1		2	0	6
18	**Shat Kriyakala in surgical practice** 1. Shat Kriyakala in surgical practice. 2. Shat Kriyakala of Arsha, Bhagandara with a special focus on infective pathology, e.g., Unduka Pucha Shotha (Appendicitis), Pittashaya Shotha (Cholecystitis) etc.	2	5	1	0	2
19	**Samanya Vyadhi Parichaya** 1. Vranashotha (Inflammation) - Nirukti, Nidana, Samprapti, Prakara, Lakshana, Sadhya-Asadhyata, Upadrava and Chikitsa. 2. Vidradhi (Abscess) and Pidika (Boils) - Nidana, Samprapti, Prakara, Lakshana, Sadhya-Asadhyata, Upadrava and Chikitsa. 3. Pramada Dagdha/Dagdha Vrana (Burn) - Etiopathogenesis, Classification, Assessment of Burn, Complications and Management of Burn. 4. Marmaghata (Shock) - Definition, Classification, Etiopathogenesis, Clinical features, Diagnosis and Management of	2	10	6	3	6

	Hypovolaemic, Traumatic and Neurogenic Shock. 5. Cardiogenic & Septic Shock and Crush syndrome - Etiopathogenesis, Clinical features, Diagnosis and Management. 6. Kotha (Gangrene) – Etiopathogenesis, Types, Clinical features, Investigations, Differential Diagnosis, Complications and Management. 7. Granthi (Dermoid Cyst and Sebaceous Cyst) - Nidana, Prakara, Samprapti, Lakshana and Chikitsa. 8. Arbuda - Nidana, Prakara, Samprapti, Lakshana and Chikitsa. 9. Tumour - Definition, Classification, Clinical features, Complications and Management. 10. Examination of Granthi (lump or swelling). 11. Emergency management in different types of Shock (Case presentation/PBL/Roleplay). 12. Assessment and documentation of Pramada Dagdha (Burn case).					
20	**Vrana** 1. Vrana – Nirukti, Prakara, Nidana, Samprapti, Vrana Vastu, Prakara, Lakshana, Vrana Pariksha and Vrana Sadhya-Asadhyata. 2. Vrana Avastha - Dustavrana, Shuddha Vrana, Ruhyamana Vrana, Samyak Roodha Vrana, Pathya-Apathya and Vrana Upadrava. 3. Vrana Chikitsa –Shashti Upakrama – first 21 Upakramas. 4. Shashti Upakrama –22 to 40 Upakramas. 5. Shashti Upakrama – 41 to 60 Upakramas except Ashtavidha Shastra Karma. 6. Ulcer – Definition, Types, Wound healing stages and Management. 7. Prameha Pidaka - Diabetic carbuncle and wounds. 8. Sadhyo Vrana (Traumatic wounds) – Nidana, Prakara, Lakshana, Upadrava and Chikitsa. 9. Examination of an Ulcer. 10. Examination of the Peripheral nerve lesions. 11. Surgical site infection.	2	10	7	2	6

	12. Demonstration of wound dressings.					
21	**Kshudra Roga** 1. Kshudra Roga - Clinical features. 2. Kshudra Roga - Management. 3. Examination of the Hand.	2	3	2	0	2
22	**Manya Vikara** 1. Galaganda, Gandamala, Apachi - Nidana, Samprapti, Lakshana and Chikitsa. 2. Pashanagardabha (Parotitis) – Etiopathogenesis, Clinical features, Investigations, Differential Diagnosis, Complications and Management. 3. Thyroid gland - Surgical anatomy and Physiology. 4. Galaganda (Goitre)- Etiopathogenesis, Clinical features, Investigations, Differential Diagnosis, Complications and Management. 5. Toxic Goitre, Thyroiditis - Clinical features and Management. 6. Neoplasms of Thyroid - Clinical features and Management. 7. Examination of Thyroid gland. 8. Examination of the Gala (Neck). 9. Examination of a Lymphatic system.	2	5	3	3	6
23	**Sira Vikara (Venous Disorders)** 1. Surgical Anatomy and Pathology. 2. Superficial and Deep Venous Thrombosis - Etiopathogenesis, Clinical features, Investigations, Differential Diagnosis, Complications and Management. 3. Sira Granthi (Varicose veins) - Etiopathogenesis, Clinical features, Investigations, Differential Diagnosis, Complications and Management. 4. Clinical examination of Sira Granthi (Varicose veins). 5. Clinical examination of Siraja Vrana (Venous Ulcers). 6. Examination and differential diagnosis of unilateral and bilateral Lower Limb Oedema.	2	10	3	1	4
24	**Dhamani Vikara (Arterial disorders)**	2		3	0	2

	1. Dhamani Granthi (Aneurysm)– Etiopathogenesis, Clinical features, Investigations, Differential Diagnosis, Complications and Management. 2. Buerger's Disease - Etiopathogenesis, Clinical features, Investigations, Differential Diagnosis, Complications and Management. 3. Raynaud's Disease - Etiopathogenesis, Clinical features, Investigations, Differential Diagnosis, Complications and Management. 4. Examination of the Dhamani Vikara (Arterial disorders).					
25	**Snayu Vikara (Diseases of tendons and ligaments)** 1. Snayu Shotha (Tendonitis), Pratan Shotha (Tenosynovitis), Pratan Granthi (Ganglion), Dupuytren's Contracture - Etiopathogenesis, Clinical features, Investigations and Management. 2. Amputation –Definition, Classification, Indications, Contraindications and Complications. 3. Techniques of Amputation With examples of individual amputation – Video Demonstration/Hands-on training on simulator. 4. Examination of Diseases of Snayu Vikara (Diseases of tendons and ligaments).	2	5	2	0	4
26	**AIDS - HIV and Hepatitis (B and C)** 1. Etiopathogenesis, Diagnosis and Management. 2. Demonstration of safety precautions and care needs to be taken in the infected patients.	2	2	1	0	2
Total Marks			**100**	**60**	**20**	**100**

Paper 2 (Shalya Tantra Chikitsa Siddhanta)						
Sr. No	**A2 List of Topics**	**B2 Term**	**C2 Marks**	**D2 Lecture hours**	**E2 Non-Lecture hours**	**E2 Non-Lecture hours**

					Theory	Practical
27	**Bhagna (Skeletal Injuries)** 1. Asthi Bhagna/Kanda Bhagna (Fracture) - Nidana, Prakara, Lakshana, Upadrava and Chikitsa. 2. Ansaphalaka Bhagna (Scapula Fracture), Akshakasthi Bhagna (Clavicle Fracture) - Clinical features, Diagnosis, Complications and Management. 3. Pragandasthi Bhagna (Humerus Fracture), Bahiprakoshthasthi Bhagna (Radius Fracture), Antaprakoshthasthi Bhagna (Ulna Fracture) - Clinical features, Diagnosis, Complications and Management. 4. Urvasthi Bhagna (Femur Fracture), Janwasthi Bhagna (Patella), Antar Janghasthi and Bahir Janghasthi Bhagna (Tibia and Fibula Fracture) - Clinical features, Diagnosis, Complications and Management. 5. Sroni Bhagna (Fracture of the Pelvis) - Clinical features, Diagnosis, Complications and Management. 6. Sandimoksha (Dislocation) - Nidana, Prakara, Lakshana, Upadrava and Chikitsa. 7. Ansa Sandhimoksha (Shoulder joint Dislocation), Kurpara Sandhimoksha (Elbow joint Dislocation) - Clinical features, Diagnosis, Complications and Management. 8. Vankshana Sandhimoksha (Hip joint Dislocation) - Clinical features, Diagnosis, Complications and Management. 9. Examination of the Asthi Abhighata (Bone Injuries). 10. Examination of Sandhi Abhighata (Joint Injuries). 11. Hands on training - Immobilisation, Traction - skin and skeletal. 12. Hand on training - First Aid in cases of Bhagna and Sandimoksha (Fracture and Dislocation).	2	10	3	5	8
28	**Asthi Sandhi Vikara (Diseases of Bone and Joints)**	2	5	2	2	6

	1. Asthi Vidradhi (Osteomyelitis) - Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 2. Asthi Granthi and Arbuda (Bone Cysts and Tumours) - Clinical features, Diagnosis and Management. 3. Asthi Kshaya (Bone Tuberculosis) - Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 4. Asthi Shosha (Osteoporosis), Paget's Disease - Clinical features, Diagnosis and Management. 5. Examination of the Diseases of Bone. 6. Examination of Pathological Joints.					
29	**Shirobhighata (Cranio-cerebral Injurie/ Disorders)** 1. Shirobhighata (Scalp injury and Skull fracture) – Clinical features and Management. 2. Mastulunga Abhighata (Brain injury) - Cerebral Concussion, Contusion and Laceration. Haemorrhage - Clinical features, Diagnosis and Management. 3. Mastishka Arbuda (Benigh and Malignant tumours of Brain) – Clinical features, Diagnosis and Management. 4. Examination of Shirobhighata (Cranio-cerebral Injuries/Disorders).	2	6	2	1	2
30	**Kasheruka Vikara (Diseases of Spine)** 1. Kasheruka Kshaya (Spinal Tuberculosis) - Etiopathogenesis, Classification, Investigations, Complications and Primary Management. 2. Ankylosing Spondylitis - Etiopathogenesis, Classification, Investigations, Complications and Primary Management. 3. Examination of Kasheruka Abhighata (Spinal Injuries) and Abnormalities. 4. Clinical examination of non-traumatic spinal disorders. 5. Three stage stabilization with Logroll hands on training.	2		1	1	4
31	**Stana Roga (Diseases of Breast)**	2	5	1	2	2

	1. Stana Vidradhi (Breast abscess) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 2. Stana Granthi (Fibroadenoma) and Fibroadenosis - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 3. Stana Arbuda (Benign and Malignant tumours of Breast) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 4. Examination of the Breast - Patient education for 'Self Examination of Breast'.					
32	**Urah Vikara (Diseases of Chest)** 1. Urah Abhighata - Chest Injury (Parshukasthi Bhagna - Fracture of Ribs, Pneumothorax, Haemothorax, Stove in Chest, Flail Chest and Surgical Emphysema) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 2. Phupusavarana Shotha (Pleurisy), Phupusavarana Vidradhi (Pleural Abscess), Pleural Effusion, Phupusa Granthi (Cysts of Lung), Phupusa Arbuda (Benign and Malignant tumours of Lung) - Etiopathogenesis, Classification, Clinical features, Diagnosis and Management. 3. Examination of Urah Abhigata (Injuries of the Chest). 4. Examination of Urah Vikara (Diseases of the Chest).	2	3	1	1	4
33	**Anna Nalika Vikara (Diseases of Oesophagus)** 1. Sahaja Vikara (Congenital Anomalies), Anna Nalika Shotha (Oesophagitis) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 2. Anna Nalika Raktasrava (Oesophageal Varices) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 3. Anna Nalika Arbuda (Benign and Malignant tumours of Oesophagus) -	2	2	2	1	2

	Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 4. Examination of Dysphagia.					
34	**Gulma Roga** 1. Gulma Roga - Nidana, Prakara, Lakshana, Upadrava and Chikitsa.	2	2	1	0	0
35	**Shoola Vyadhi** 1. Shoola - Nidana, Prakara, Lakshana, Upadrava and Chikitsa. 2. Examination of Acute Abdomen.	2		1	0	2
36	**Udara Roga** 1. Udara Roga (Yakritodar, Pleehodar, Chhidrodar, Baddhagudodar) - Nidana, Prakara, Samprapti, Lakshana and Chikitsa. 2. Jalodara (Ascites) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 3. Peritonitis - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management.	2	5	1	2	2
37	**Aamashaya Evam Adho-Aamashaya Vikara (Diseases of Stomach and Duodenum)** 1. Annadrava Shoola and Parinama Shoola (Peptic Ulcer) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management.. 2. Pyloric stenosis – Clinical Diagnosis and Management. 3. Aamashaya Arbuda (Benign and Malignant tumours of Stomach) - Clinical Diagnosis and Management. 4. Examination of Abdominal Lump.	2	12	2	1	2
38	**Kshudrantra Vikara (Diseases of Small Intestine)** 1. Kshudrantra Kshaya Janya Vikara (Tuberculosis of Intestine) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 2. Blind Loop Syndrome, Short Bowel	2		4	2	1

	Syndrome and Typhoid Enteritis - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 3. Kshudrantra Arbuda (Benign and Malignant tumours of Intestine) - Clinical features, Diagnosis and Management. 4. Baddhagudodar (Intestinal Obstruction) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 5. Antrantara Pravesha (Intussusception) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 6. Chidrodara (Perforation) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 7. Per Abdominal Examination.					
39	**Brihadantra Vikara (Diseases of Large Intestine)** 1. Grahani (Crohn's Disease and Ulcerative Colitis) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 2. Unduka Puchha Shotha (Appendicitis) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management 3. Brihadantra Arbuda (Benign and Malignant tumours of Colon) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 4. Examination of Chronic Abdomen.	2		2	1	1
40	**Guda Vikara (Diseases of Rectum and Anal Canal)** 1. Surgical Anatomy and Physiology. 2. Gudabhramsha (Prolapse of the rectum) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 3. Guda Vidradhi (Anorectal Abscesses) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management.	3		5	4	4

	4. Bhagandara (Fistula-in-ano) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 5. Arsha - Nidana, Prakara, Samprapti, Lakshana and Chikitsa. 6. Haemorrhoids - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 7. Parikartika (Fissure-in-ano) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 8. Guda Arbuda (Benign and Malignant tumours of Rectum and Anal Canal) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 9. Shalyaja Nadi Vrana (Pilonidal Sinus), Guda Paka (Proctitis), Guda Kandu (Pruritis Ani) and Guda Abhighata (Injuries of Anorectal Region) –Clinical features and Management. 10. Examination of a Nadivrana (Sinus) and Bhagandara (Fistula). 11. Examination of Anorectal Cases.					
41	**Udarabhighata (Abdominal Injuries)** 1. Udarabhighata (Abdominal Injuries) – Clinical features and Management. 2. Examination of Udarabhighata (Abdominal Injuries).	3		1	0	2
42	**Yakrit Vikara (Diseases of Liver)** 1. Yakrit Abhighata (Liver Injury) - Etiology, Clinical features, Diagnosis and Emergency management. 2. Yakrit Vidradhi (Liver Abscess) and Yakrit Granthi (Cysts of Liver) - Etiology, Clinical features, Diagnosis and Management. 3. Yakrit Arbuda (Benign and Malignant tumours of Liver) - Etiology, Clinical features, Diagnosis, Classification and Management. 4. Demonstration of Surgical anatomy of the Liver, Acute Liver Injury on the	3	15	3	1	10

	patient/simulator. 5. Videographic demonstration of diagnosis and evaluation of Surgical Jaundice on the patient/simulator. 6. Group Discussion on the case of Yakrit Abhighata (Acute Liver Injury). 7. Practical / Videographic demonstration of Yakritodara (Hepatomegaly) and Yakrit Vidradhi (Liver Abscess) on the patient/simulator. 8. Videographic demonstration of Case of Portal Hypertension on the patient/simulator. 9. Videographic demonstration of Surgical Management of Portal Hypertension.					
43	**Pittashaya Vikara (Diseases of Gall Bladder)** 1. Surgical Anatomy and Physiology, Sahaja Vikara (Congenital Anomalies). 2. Choledochal Cyst and Congenital Biliary Atresia, Pittashaya Ashmari (Cholelithiasis) - Etiology, Clinical features, Diagnosis, Complications and Management. 3. Pittashaya Shotha (Cholecystitis) and Choledocholithiasis - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 4. Videographic demonstration of Biliary atresia and its complications on patient/simulation. 5. Videographic demonstration of MRCP and ERCP on the patient/simulator. 6. Demonstration of Pittashaya Shotha (Cholecystitis) on the patient/simulator. 7. Class discussion/Case presentation /Video demonstration/Roleplay/Clinical Diagnosis of Hepatobiliary Diseases.	3		2	1	8
44	**Agnyashaya Vikara (Diseases of Pancreas)** 1. Surgical Anatomy and Physiology, Sahaja Vikara (Congenital Anomalies). 2. Agnyashaya Shotha (Pancreatitis) - Etiopathogenesis, Classification, Clinical features, Investigations, Diagnosis, Complications and Management. 3. Agnyashaya Granthi (Cysts and Pseudocyst of Pancreas) - Etiopathogenesis, Clinical features, Diagnosis and Management.	3	5	3	1	6

	4. Agnyashaya Arbuda (Benign and Malignant tumours of Pancreas), Insulinoma and Zollinger Ellisson Syndrome - Clinical features, Diagnosis and Management. 5. Class discussion/Case presentation/Video demonstration/Roleplay of Agnyashaya Abhighata (Pancreatic Injury) and Agnyashaya Shotha (Pancreatitis) on the patient/simulator. 6. Presentation/Video demonstration/Roleplay of demonstration of Pseudo Pancreatic cyst on the patient/simulator. 7. Class discussion/Case presentation/Video demonstration/Roleplay of demonstration of Agnyashaya Arbuda (Benign and Malignant tumours of Pancreas).					
45	**Pleeha Vikara (Diseases of Spleen)** 1. Surgical Anatomy and Physiology, Sahaja Vikara (Congenital Anomalies). 2. Pleeha Abhighata (Rupture of Spleen) - Etiopathogenesis, Classification, Clinical features, Investigations and Management. 3. Hypersplenism and Pleeha Vridhi (Splenomegaly) - Etiopathogenesis, Classification, Clinical features and Management. 4. Class discussion/Case presentation/Video demonstration/Roleplay for Demonstration of Pleeha Vridhi (Splenomegaly) on the patient/simulator.	3		3	0	2
46	**Vrikka Evam Mutravahini Vikara (Diseases of Kidney and Ureters)** 1. Surgical Anatomy and Physiology, Sahaja Vikara (Congenital Anomalies). 2. Vrikka Granthi (Polycystic Kidney), Horse shoe Kidney - Etiopathogenesis, Clinical features, Diagnosis and Management. 3. Vrikka Evam Mutravahini Vikara Abhighata (Injuries to Kidneys and Ureters) – Clinical features and Management. 4. Hydronephrosis - Etiopathogenesis, Classification, Clinical features and Management. 5. Pyelonephritis - Etiopathogenesis, Classification, Clinical features and	3	15	5	4	2

	Management. 6. Vrikka Vidradhi (Perinephric Abscess and Renal Abscess) - Etiopathogenesis, Clinical features and Management. 7. Vrikka Ashmari (Renal Calculus) - Etiopathogenesis, Types, Clinical features, Investigations, Complications and Management. 8. Mutravahini Ashmari (Ureteric Calculus) - Etiopathogenesis, Classification, Clinical features, Investigations and Management. 9. Vrikka Arbuda (Benign and Malignant tumours of the Kidney) - Etiopathogenesis, Classification, Clinical features and Management. 10. Class discussion/Case presentation/ Video demonstration/Roleplay of case of Chronic Kidney Disease.					
47	**Mutrashaya Vikara (Diseases of Urinary bladder)** 1. Surgical Anatomy and Physiology, Sahaja Vikara (Congenital Anomalies). 2. Mutrashaya Shotha (Cystitis) - Etiopathogenesis, Clinical features, Diagnosis and Management. 3. Mutrashmari (Vesical Calculus) - Etiopathogenesis, Clinical features, Diagnosis, Investigations and Management. 4. Mutrashaya Arbuda (Benign and Malignant tumours of Urinary Bladder) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 5. Video demonstration of the process of Cystoscopy, PCNL and ESWL on the patient/simulator. 6. Raktamutrata (Haematuria), Mutra Kshaya (Oliguria), Mutra Sankshaya (Anuria), Neurogenic Bladder - Case evaluation/Class presentation/Roleplay/Group discussion. 7. Examination of Urinary case.	3		3	2	4
48	**Mutraghata and Mutrakrichra** 1. Mutrakrichra (Dysuria) - Nidana, Samprapti, Prakara, Lakshana, Upadrava and Chikitsa.	3		2	0	2

	2. Mutraghata (Retention of Urine) - Nidana, Samprapti, Prakara, Lakshana, Upadrava and Chikitsa. 3. Video demonstration of Suprapubic Catheterization.					
49	**Paurusha Granthi Vikara (Diseases of Prostate)** 1. Surgical Anatomy and Physiology. 2. Paurusha Granthi Shotha (Prostatitis), Paurusha Granthi Vidradhi (Prostatic Abscess) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 3. Mutrashtheela/Vatashtheela (Benign Prostatic Hyperplasia) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 4. Paurusha Granthi Arbuda (Benign and Malignant tumours of Prostate) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 5. Demonstration of Prostatic Enlargement through Digital rectal examination on the patient/simulator. 6. Video demonstration of TURP on the patient/simulator.	3		3	1	4
50	**Mutramarga Vikara (Diseases of Urethra)** 1. Mutramarga Sahaja Vikara (Congenital Anomalies of Urethra) – Etiopathogenesis, Diagnosis and Treatment. 2. Mutramarga Shotha (Urethritis) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 3. Mutramarga Abhighata (Injuries to Urethra) and Mutramarga Sankocha (Urethral Stricture) - Clinical features and Management.	3		2	1	0
51	**Medhra Vikara (Diseases of Penis)** 1. Sahaja Vikara - Congenital Anomalies (Hypospadias, Epispadias and Ectopia Vesicae) - Clinical features, Diagnosis, Complications and Management.	3	15	3	2	2

	2. Parivartika (Paraphimosis), Avapatika (Preputial Tear) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 3. Niruddha Prakasha (Phimosis) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 4. Medhra Paka (Balanoposthitis) - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 5. Medhra Arbuda (Benign and Malignant tumours of Penis), Peyronie's Disease and Granuloma Inguinale - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 6. Examination of Male External Genitalia.					
52	**Mushka Evum Vrishan Vikara (Diseases of Scrotum and Testis)** 1. Vrishan Shotha (Epididymo-orchitis), Vrishan Granthi (Epididymal Cyst), Vrishan Siraja Granthi (Varicocele), Spermatocele, Scrotal Filariasis - Etiopathogenesis, Clinical features, Diagnosis, Complications and Management. 2. Avatarita Vrishan (Undescended Testis), Asthanik Vrishan (Ectopic Testis), Vrishan Vivartan (Torsion of Testis), Vrishan Arbuda (Benign and Malignant tumours of Testis) - Etiopathogenesis, Clinical features, Investigations, Diagnosis, Complications and Management. 3. Examination of Mushka (Scrotum) and Vrishan (Testis). 4. Examination of Inguino-Scrotal Swelling.	3		2	0	4
53	**Vriddhi Roga** 1. Vriddhi Roga - Nidana, Prakara, Lakshana and Chikitsa. Mutravriddhi (Hydrocele)-Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 2. Examination and Differential Diagnosis of Mutravriddhi (Hydrocele).	3		1	0	2

54	**Antravriddhi (Hernia)** 1. Surgical Anatomy of Inguinal Canal. Hernia (In general) - Definition, Etiology, Classification and Diagnosis. 2. Antravriddhi (Inguinal Hernia) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 3. Vankshanstha Vriddhi (Femoral Hernia) - Surgical Anatomy of Femoral Canal, Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 4. Epigastric Hernia - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 5. Nabhigata Vriddhi (Umbilical Hernia and Para umbilical Hernia) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 6. Shastrotar Vriddhi (Incisional Hernia) - Etiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. 7. Examination of Antravriddhi (Inguinal Hernia), Nabhigata Vriddhi (Umbilical Hernia) and Shastrotar Vriddhi (Incisional Hernia) on the patient/simulator. 8. Video demonstration of Hernia Surgery.	3		4	2	4
Total Marks			**100**	**65**	**38**	**92**

Table 3 : Learning objectives of Course

Paper 1 (Fundamentals of Shalya Tantra)										
A3 Course outcome	**B3 Learning Objective (At the end of the session, the students should be able to)**	**C3 Domain/sub**	**D3 MK / DK / NK**	**E3 Level**	**F3 T-L method**	**G3 Assessment**	**H3 Assessment Type**	**I3 Term**	**K3 Integration**	**L3 Type**
Topic 1 Introduction to Shalya Tantra (Introduction to development of surgery) (LH :1 NLHT: 1 NLHP: 4)										
A3	**B3**	**C3**	**D3**	**E3**	**F3**	**G3**	**H3**	**I3**	**K3**	**L3**
CO1	Define Shalya, Shalya Tantra, and its importance.	CK	DK	K	L&PPT ,REC,L	DEB,PUZ, C-INT,QZ ,P-REC	F&S	I	-	LH
CO1	Explain Chronological Development of Surgery from ancient to present era	CK	DK	K	PER,L& PPT ,L	P-EXAM,QZ ,DEB,P-VIVA	F&S	I	-	NLHT1.1
CO1, CO3	Perform a comprehensive patient assessment, systematically examine, identify key clinical findings, and effectively communicate them for accurate diagnosis and management.	CK	MK	KH	L,CBL, PT,CD, L&PPT	VV-Viva,P-EXAM,CBA,SBA,Log book	F&S	I	-	NLHP1.1
CO1, CO3, CO4	Describe clinical identification and assessment of pain, cyanosis, and clubbing, is crucial for diagnosing various medical conditions.	CK	MK	KH	D-BED, CBL,CD,PT,L &PPT	P-EXAM,CBA,PP-Practical,P-CASE,DOAP	F&S	I	-	NLHP1.2

Non Lecture Hour Theory		
S.No	**Name of Activity**	**Description of Theory Activity**
NLHT 1.1	History of surgery	Compilation & Presentation

Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 1.1	Surgical case taking	**Steps** 1. Patient History: Chief Complaint: Ask the patient to describe their primary concern or symptom. History of Present Illness: Gather detailed information about the onset, duration, and nature of the symptoms. Ask about any aggravating or relieving factors and associated symptoms. Past Medical History: Inquire about previous illnesses, surgeries, hospitalizations, and ongoing medical conditions. Medication History: List all medications the patient is currently taking, including dosages and duration. Family History: Ask about any relevant medical conditions in the patient's family. Social History: Explore lifestyle factors such as smoking, alcohol,tobacco chewing. Review of Systems: Conduct a systematic inquiry about symptoms related to different organ systems to identify any other issues. 2. Physical Examination: General Examination: Assess the patient's general appearance, vital signs, and overall condition. Inspection: Observe the area of concern for any visible abnormalities such as swelling, discoloration, or deformities. Palpation: Feel the area for tenderness, masses, or other abnormalities. Percussion: Tap the area to assess underlying structures. Auscultation: Use a stethoscope to listen to any abnormal sounds related to the surgical conditions. Special Tests: Perform specific tests relevant to the suspected condition. 3. Diagnostic Investigations: Order relevant laboratory tests, imaging studies, or other diagnostic procedures to confirm the diagnosis. 4. Case Presentation: Summarize the patient's history, physical examination findings, and results of diagnostic investigations.

		Discuss the differential diagnosis and rationale for the suspected condition. Outline the proposed management plan, including surgical and non-surgical options. **Recapitulation:** Thorough Assessment: A comprehensive history and physical examination are crucial for accurate diagnosis and effective management of surgical cases. Interdisciplinary Approach: Collaboration with other healthcare professionals ensures a holistic approach to patient care. Patient Communication: Clear and empathetic communication with the patient is essential for building trust and ensuring adherence to the treatment plan.
NLHP 1.2	Special signs and symptoms pertaining to surgery	**Steps:** 1. Identification of Pain: • Objective: ◦ Understand the types and characteristics of pain. • Procedure: ◦ Interview the patient to gather a detailed pain history (location, intensity, duration, quality, and factors that alleviate or worsen it). ◦ Use pain assessment scales (e.g., Visual Analog Scale, Numeric Rating Scale) to quantify pain. ◦ Observe non-verbal clues and physical signs of pain such as grimacing, guarding, or changes in vital signs. 2. Identification of Cyanosis: • Objective: ◦ Recognize cyanosis as a sign of decreased oxygenation in blood. • Procedure: ◦ Inspect areas with thin skin (lips, nail beds, earlobes) for bluish discoloration. ◦ Observe for central cyanosis (tongue, oral mucosa) vs. peripheral cyanosis (fingers, toes). ◦ Perform pulse oximetry to measure oxygen saturation levels.

- Consider underlying conditions causing cyanosis (e.g., respiratory or cardiovascular issues).

3. Identification of Clubbing:
   - Objective:
     - Identify the physical changes in fingernails and fingers indicating clubbing.
   - Procedure:
     - Inspect the patient's fingers for the characteristic rounded and bulbous appearance of clubbing.
     - Perform the Schamroth's window test (placing the dorsal side of both index fingers together to check for a small diamond-shaped window; absence indicates clubbing).
     - Note changes in the angle between the nail and nailbed and thickening of the terminal phalanges.
     - Evaluate for underlying conditions associated with clubbing (e.g., chronic lung disease, heart disease).
4. Post-Assessment Care:
   - Document findings accurately in patient records.
   - Provide patient education on the significance of these signs and symptoms.
   - Plan for further diagnostic tests or referrals based on clinical findings.
5. Student Practice:
   - Allow students to practice the assessment techniques on simulators or peers under supervision.
   - Provide constructive feedback and guidance to ensure proper technique and accurate diagnosis.

Topic 2 Yantra and Shastra (Blunt and sharp instruments) (LH :2 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO5	Define Types, Guna, Uses, Dosha, Karma of Yantra, and Upayantra along with relevant modern instruments.	CK	MK	K	L,L&PPT	P-VIVA,P-EXAM,PP-Practical,S-LAQ	F&S	I	-	LH

CO1, CO2, CO5	Define Types, Guna, Uses, Dosha, Karma of Shastra, and Anushastra along with relevant modern instruments	CK	MK	K	L,L&PPT	P-EXAM,P-VIVA,PP-Practical,Log book,INT	F&S	I	-	LH
CO1, CO2	Identify, use, and compare Yantras (traditional Ayurvedic surgical instruments) with modern surgical instruments.	CK	MK	K	D,L&PPT ,L	P-PRF,PP-Practical,P-VIVA,VV-Viva,P-EXAM	F&S	I	-	NLHP2.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 2.1	Demonstration, Comparison & classification of instruments	**Steps:** 1. Introduction to Yantras: • Provide an overview of various Yantras used in Ayurvedic surgery. • Highlight the historical significance and traditional uses of these instruments. 2. Identification of Yantras: • Display different types of Yantras such as: ◦ Swastika ◦ Sandansha ◦ Taal ◦ Nadi ◦ Shalaka ◦ Upyantra • Explain the specific uses of each Yantra in traditional surgical practices.

		3. Comparison with Modern Surgical Instruments: • Probes and Catheters: ◦ Compare traditional probes with modern flexible catheters and their advanced materials. • Forceps: ◦ Highlight the differences between Swastika Yantra and modern hemostatic forceps. • Surgical Instruments for Intestinal Surgeries: ◦ Discuss the advancements in modern laparoscopic instruments compared to Antra Yantra. • Tubes and Drains: ◦ Analyze the evolution from Nadi Yantra to sophisticated suction and drainage systems used today. 4. Practical Hands-On Training: • Allow students to practice using Yantras on simulators or models. • Supervise and provide feedback to ensure proper handling and understanding of techniques. • Demonstrate the use of corresponding modern instruments for comparison.

Topic 3 Nirjantukarana (Sterilization) (LH :1 NLHT: 1 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO7	Describe Methods & Types of sterilisation	CK	MK	K	L,L&PPT	P-PS,QZ ,P-VIVA,CL-PR	F&S	I	-	LH
CO1, CO7	Explain about Vranitagara	CC	MK	K	L&GD, L_VC,TUT,DIS, PER	M-MOD,P-EXAM,PRN,CL-PR,P-PRF	F&S	I	-	NLHT3.1
CO1, CO2,	Discuss aseptic techniques, sterilization methods, and OT sterilization while emphasizing infection control in surgical	CC	MK	SH	FV,FC, PT,D,D-	PP-Practical,P-MOD,P-	F&S	I	-	NLHP3.1

CO3	settings.				M	EXAM,P-VIVA,INT				
CO1, CO2, CO4	Demonstrate proper hand hygiene, PPE usage, and the correct techniques for donning and doffing gloves and gowns to ensure infection control.	PSY-GUD	MK	SH	DIS,L&GD,D,PT,PER	PRN,P-PRF,PP-Practical,SBA,DOPS	F&S	I	-	NLHP3.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 3.1	Vranitagara	Compile the information regarding Vranitagara and compare it with Ideal Surgical Ward

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 3.1	Aseptic techniques, sterilization and disinfection of Surgical instruments, OT sterilization	**Steps** Aseptic Techniques Hand Hygiene: Perform hand washing with antiseptic soap or use an alcohol-based hand sanitizer before and after patient contact. Use of Personal Protective Equipment (PPE) (if Available) Wear sterile gloves, masks, gowns, and eye protection to prevent contamination. Preparation of the Surgical Site: Clean the surgical site with antiseptic solutions, such as chlorhexidine or povidone-iodine. Maintenance of a Sterile Field: Use sterile drapes and instruments. Ensure all items in the sterile field remain uncontaminated. Aseptic Handling of Instruments: Avoid contact between sterile instruments and non-sterile surfaces. Use sterile technique when passing instruments.

		Sterilization and Disinfection of Surgical Instruments Cleaning: Rinse and scrub instruments with water and detergent to remove organic material. Disinfection: Use chemical disinfectants (e.g., glutaraldehyde, hydrogen peroxide) to reduce microbial load on instruments. Sterilization Methods: Autoclaving: Use steam under pressure at 121-134°C to sterilize heat-resistant instruments. Ethylene Oxide Gas: Suitable for heat-sensitive instruments. Requires aeration post-sterilization. Dry Heat: Use high temperatures (160-180°C) for instruments that can withstand dry heat. Chemical Sterilization: Use liquid chemicals like glutaraldehyde for instruments sensitive to heat and moisture. OT Sterilization Cleaning the Operating Room: Clean all surfaces, including floors, walls, and furniture, with disinfectant solutions. Air Sterilization: Use high-efficiency particulate air (HEPA) filters and ultraviolet (UV) light to sterilize the air. Sterilization of Equipment: Ensure all equipment used in the OT is sterilized or disinfected before use. Environmental Control: Maintain a controlled environment with appropriate temperature, humidity, and ventilation to prevent microbial growth.
NLHP 3.2	Hand washing techniques, Donning of Gloves & Gown	**Steps :** Hand Washing Techniques Preparation: Remove any jewelry (rings, watches). Wet hands with clean, running water. Apply Soap:

Apply enough soap to cover all hand surfaces.
Scrub Thoroughly:
Rub hands together to create lather.
Scrub all surfaces, including the back of hands, between fingers, and under nails, for at least 20 seconds.
Focus on thumbs, fingertips, and wrists.
Rinse:
Rinse hands thoroughly under clean, running water.
Dry Hands:
Use a clean towel or air dry hands.
Use the towel to turn off the tap if applicable.
Donning Gloves
Preparation:
Perform hand hygiene before donning gloves.
Select Appropriate Gloves:
Choose the right size and type of gloves for the task.
Don Gloves:
Hold the glove at the wrist and insert the opposite hand.
Pull the glove on, ensuring a snug fit.
Repeat for the other hand.
Donning Gown
Preparation:
Perform hand hygiene before donning the gown.
Open the Gown:
Hold the gown by the shoulders and allow it to unfold.
Don the Gown:
Insert arms into the sleeves one at a time.
Fasten the gown at the neck and waist to ensure full coverage.
Ensure Proper Fit:
Adjust the gown to cover your clothing completely.

		Make sure the gown is comfortable and allows for movement.

Topic 4 Sangyaharana (Anaesthesia) (LH :2 NLHT: 2 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO4, CO5	Describe Local Anaesthetic Drugs, Techniques, Indications, Contraindications, Complications, and their Management.	CK	MK	K	L&PPT ,L,L_VC	P-VIVA,M-POS,PP-Practical,CL-PR,QZ	F&S	I	-	LH
CO1, CO3, CO5	Explain Regional and General anaesthesia- Drugs, Techniques, Indications, Contraindications, Complications and their Management	CC	MK	K	L,L&PPT ,L&GD	P-PRF,VV-Viva,QZ ,PP-Practical, P-EXAM	F&S	I	-	LH
CO1, CO2, CO3, CO5	Describe principles of Preoperative assessment	CC	MK	K	L&GD, FC,D-BED,CD, L_VC	P-EXAM,VV-Viva,PRN	F&S	I	-	NLHT4.1
CO1, CO2, CO4, CO5, CO7	Describe Principles of safe General Surgery	CK	MK	K	L_VC,TUT,DIS, L&GD, BS	P-CASE,DEB,P-ID,P-EXAM,S-LAQ	F&S	I	-	NLHT4.2
CO1, CO2, CO4, CO6	Elaborate the basic principles of CPR.Perform effective chest compressions and rescue breaths.Recognize the signs of cardiac arrest.	CAP	MK	KH	KL,D-M,L_VC,SIM, TBL	SP,P-PRF, CHK,P-VIVA,DOPS	F&S	I	-	NLHP4.1
CO1, CO2,	Demonstrate airway management techniques, including endotracheal intubation, while emphasizing the importance of	CAP	MK	KH	SIM,D-M,L_V	P-EXAM,CHK,P-VIV	F&S	I	-	NLHP4.2

CO4, CO6	maintaining a clear airway through hands-on practice.				C,L&G D,W	A,PP-Practical,DOPS				

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 4.1	Preoperative assessment	1. Patient interview and medical history collection 2. Physical assessment (vital signs, cardiovascular, respiratory, neurological) 3. Laboratory results review and documentation 4. Medication reconciliation 5. Allergy banding and sensitivity testing 6. Patient education (surgery, anesthesia, postoperative care) 7. Informed consent verification 8. Preoperative checklist completion
NLHT 4.2	Safe General Surgery	Preoperative Principles 1. Informed consent: Patient understanding of risks, benefits, and alternatives. 2. Accurate diagnosis: Confirm diagnosis before surgery. 3. Proper patient preparation: Optimize medical conditions, fasting, and medication. 4. Surgical site marking: Verify correct site and side. Intraoperative Principles 1. Asepsis and sterilization: Maintain sterile environment. 2. Proper anesthesia: Monitor and adjust anesthesia as needed. 3. Surgical team communication: Clear communication among team members. 4. Hemostasis: Control bleeding promptly. 5. Tissue handling: Minimize tissue trauma. Surgical Technique Principles 1. Respect tissue planes: Dissect along natural tissue planes. 2. Minimize dissection: Limit tissue damage. 3. Precise incisions: Make accurate, controlled incisions. 4. Gentle tissue retraction: Avoid excessive force.

		5. Secure closure: Ensure proper wound closure. Postoperative Principles 1. Monitoring: Observe patient's vital signs and condition. 2. Pain management: Optimize pain relief. 3. Fluid management: Monitor and adjust fluid balance. 4. Wound care: Ensure proper wound dressing and closure. 5. Early mobilization: Promote timely recovery. General Safety Principles 1. Patient identification: Verify patient identity. 2. Medication safety: Ensure accurate medication administration. 3. Fire safety: Prevent surgical fires. 4. Electrical safety: Prevent electrical shock. 5. Infection control: Maintain proper infection control measures. Teamwork and Communication Principles 1. Clear communication: Ensure effective team communication. 2. Collaborative care: Foster teamwork among healthcare professionals. 3. Respect for patient autonomy: Prioritize patient-centered care. 4. Continuous learning: Encourage ongoing education and improvement. 5. Debriefing: Conduct postoperative debriefing sessions. Quality Improvement Principles 1. Monitor outcomes: Track surgical outcomes. 2. Identify errors: Analyze and learn from errors. 3. Implement changes: Improve processes based on data. 4. Continuous quality improvement: Regularly assess and improve care. 5. Patient feedback: Encourage patient feedback. Surgical Safety Checklist 1. Distribute a surgical safety checklist (e.g., WHO Surgical Safety Checklist). 2. Ask students to review and explain each item. 3. Role-play scenarios to demonstrate checklist usage

Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 4.1	Demonstration of BLS (Basic life support)	**Steps** 1. Assess the Situation: Ensure the scene is safe for both the rescuer and the victim. Check the victim for responsiveness by gently tapping and shouting. 2. Call for Help: If the victim is unresponsive, call for emergency medical services (EMS) immediately. If possible, ask a bystander to call EMS and fetch an Automated External Defibrillator (AED). 3. Check for Breathing: Look, listen, and feel for normal breathing for no more than 10 seconds. If the victim is not breathing or only gasping, begin CPR. 4. Chest Compressions: Position yourself over the victim's chest. Place the heel of one hand in the center of the chest, between the nipples. Place your other hand on top. Interlock your fingers and keep your arms straight. Push hard and fast, compressing the chest at least 2 inches deep at a rate of 100-120 compressions per minute. Allow the chest to fully recoil between compressions. 5. Rescue Breaths:After 30 compressions, give 2 rescue breaths. Tilt the victim's head back and lift the chin to open the airway. Pinch the nose shut and make a seal over the victim's mouth with yours. Deliver each breath over 1 second, watching for chest rise. Continue the cycle of 30 compressions and 2 breaths. 6. Using an AED: When the AED arrives, turn it on and follow the voice prompts. Attach the pads to the victim's bare chest as indicated. Ensure no one is touching the victim while the AED analyzes the heart rhythm. If a shock is advised, clear the area and press the shock button.

		Resume CPR immediately after the shock.
NLHP 4.2	Maintenance of an airway / Endotracheal intubation in a mannequin	**Steps** 1. Preparation: Ensure the mannequin is in a supine position. Gather all necessary equipment: laryngoscope, endotracheal tube, stylet, suction device, bag-valve-mask (BVM), and monitoring devices. 2. Assessment of the Airway: Check for any obstructions in the mouth and throat. Position the head to open the airway using the head-tilt-chin-lift maneuver or jaw-thrust maneuver if cervical spine injury is suspected. 3. Pre-oxygenation: Use a BVM to provide high-flow oxygen to the mannequin for several minutes to ensure adequate oxygenation before intubation. 4. Laryngoscopy: Hold the laryngoscope in your left hand and insert the blade into the mannequin's mouth, sweeping the tongue to the left. Visualize the vocal cords using the laryngoscope. 5. Endotracheal Tube Insertion: Hold the endotracheal tube with a stylet (if used) in your right hand. Guide the tube through the vocal cords into the trachea. Remove the stylet once the tube is in place. Inflate the cuff to secure the tube and prevent air leakage. 6. Confirmation of Tube Placement: Listen for bilateral breath sounds using a stethoscope. Observe chest rise and fall with each breath. Confirm placement with a capnography device to measure exhaled CO2. 7. Securing the Tube: Secure the endotracheal tube to the mannequin's mouth using tape or a commercial tube holder. Attach the tube to a ventilator or BVM for continued ventilation.

		8. Post-Intubation Care: Monitor the mannequin for any signs of complications, such as desaturation or abnormal breath sounds. Ensure proper maintenance of the airway and equipment.

Topic 5 Trividha Karma (Pre, Operative and Post Operative care) (LH :1 NLHT: 1 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO4	Describe the importance of Purva Karma -Preoperative procedure , Pradhana Karma – Astavidha shastra karma (in brief) , Paschat Karma – Post operative care of patient	CK	MK	K	L&PPT ,L,L&GD	PP-Practical,VV-Viva, S-LAQ,T-CS,PRN	F&S	I	-	LH
CO1, CO7	Explain the principles of informed consent and effective communication skills to obtain informed consent.	CK	MK	K	SIM,D, L&GD, D-BED,RP	T-CS,P-CASE,P-VIVA ,P-EXAM,P-PRF	F&S	I	-	NLHT5.1
CO1, CO2, CO5, CO6	Demonstrate proficiency in assisting and evaluating common and emergency minor surgical procedures while adhering to standard techniques and protocols.	CE	MK	KH	TBL,CBL,PT,D, KL	PP-Practical,CHK,DOPS,T-CS,P-EXAM	F&S	I	-	NLHP5.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 5.1	Informed consent in a simulated environment	1. Conduct a simulated patient encounter to obtain informed consent. 2. Role-play different patient scenarios (e.g., emergency, elective, pediatric). 3. Practice clear and concise explanation of: - Diagnosis - Treatment options - Risks and benefits

		- Alternatives 4. Address patient questions and concerns. 5. Document informed consent accurately
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 5.1	Common minor surgical procedures (Excision of Corn, Cysts, Lipoma, etc)	**Steps** Observing and Assisting in Common Surgical Procedures Preparation: Review the patient's medical history and procedure details. Ensure all necessary instruments and materials are sterilized and ready. Wear appropriate PPE and maintain aseptic technique. Excision of Corn: Observation: Watch how the surgeon cleans and anesthetizes the area. Observe the use of a scalpel to excise the corn, ensuring minimal damage to surrounding tissue. Assistance: Hand instruments to the surgeon, help with hemostasis, and assist with dressing the wound. Excision of Cyst: Observation: Note the steps of incision, dissection, and removal of the cyst. Observe the careful handling to avoid rupture. Assistance: Provide retraction, suction, and help with suturing the incision post-excision. Excision of Lipoma: Observation: Watch the incision and blunt dissection techniques used to remove the lipoma. Pay attention to maintaining clear margins. Assistance: Assist with retraction, instrument handling, and closing the incision with sutures. Observing Emergency Lifesaving Surgical Procedures Preparation: Be prepared for rapid decision-making and action. Ensure all emergency equipment and instruments are readily available.

		Emergent Incision and Drainage: Observation: Observe the identification and drainage of an abscess. Note the steps of incision, drainage, and packing. Assistance: Provide instruments, manage suction, and help with wound dressing. Emergency Airway Management (e.g., Tracheostomy): Observation: Watch how the surgeon identifies landmarks, makes the incision, and inserts the tracheostomy tube. Assistance: Help maintain a sterile field, handle instruments, and secure the tracheostomy tube.

Topic 6 Shastra Karma (Operative procedure) (LH :3 NLHT: 0 NLHP: 10)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1	Define, indication Contraindications,Types with modern correlations of Chedan, Bhedana, Lekhana	CK	MK	K	L,L&PPT	P-EXAM,QZ,P-VIVA,DEB,CL-PR	F&S	I	-	LH
CO1	Define Indications, Contraindications, and Types with modern correlations of Eshana, Aaharana, visravana	CK	MK	K	L,L&PPT ,PER, L_VC	T-CS,PP-Practical,VV-Viva,INT,DEB	F&S	I	-	LH
CO1	Define Indications Contraindications, and Types with modern correlations of Vedhana, Seevana	CK	MK	K	L&PPT ,L,L_VC	QZ ,PP-Practical,T-CS, VV-Viva,DEB	F&S	I	-	LH
CO1, CO2, CO5, CO6	Explain the principles and importance of first aid.Identify common emergencies requiring first aid,	CC	MK	KH	PT,KL, D-M,D,RP	DEB,VV-Viva,DOPS,P-CASE,SP	F&S	I	-	NLHP6.1

CO1, CO2, CO4	Explain the techniques and principles behind Chhedan, Bhedan, and Lekhan.Demonstrate the steps for each procedure on a simulator.	CC	MK	KH	BL,DIS, TUT,D, SIM	SP,VV-Viva,P-EXAM, P-PRF,DOPS	F&S	I	-	NLHP6.2
CO1, CO2, CO4	Demonstrate necessary practical skills regarding the procedure of Vedhan & Visravan (tapping of the abdomen, hydrocele, and insertion of an ICD) using a simulator	PSY-GUD	MK	KH	D,D-M, SIM,KL ,TUT	DOPS,CHK,P-VIVA, PRN,DEB	F&S	I	-	NLHP6.3
CO1, CO2, CO4	Demonstrate necessary practical skills to perform Aharana (extraction) and Eshana (probing) using a simulator.	PSY-GUD	MK	KH	D-M,DIS,KL,D, SIM	M-MOD,PRN,CHK,P-PRF,DOPS	F&S	I	-	NLHP6.4
CO1, CO2, CO4	Demonstrate the essential skills Seevan (suturing and knots) and minor surgical procedures.	PSY-GUD	MK	KH	PER,D-M,SIM, PT,D	P-VIVA,DOPS,CHK, P-EXAM,SP	F&S	I	-	NLHP6.5

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 6.1	First aid	**Steps** 1. Assess the Situation: Ensure Safety: Make sure the area is safe for both the rescuer and the victim. Check for Responsiveness: Tap the victim and shout to see if they respond. 2. Call for Help: If the victim is unresponsive or requires immediate medical attention, call emergency services right away.

		Provide clear information about the location and nature of the emergency. 3. Perform Basic First Aid Techniques: a. CPR (Cardiopulmonary Resuscitation): Compression: Perform chest compressions at a rate of 100-120 per minute, compressing at least 2 inches deep. Breaths: Give two rescue breaths after 30 compressions. Continue: Keep performing CPR until help arrives or the victim regains consciousness. b. Control Bleeding: Apply Pressure: Use a sterile cloth or bandage to apply pressure directly to the wound. Elevate: Raise the injured area above the level of the heart if possible. Wrap: Secure the dressing with a bandage or clean cloth. c. Treat Burns: Cool the Burn: Run cool (not cold) water over the burn for at least 10 minutes. Cover: Use a sterile, non-adhesive bandage or clean cloth to cover the burn. Do Not: Avoid applying creams, ointments, or ice directly to the burn. d. Handle Choking: Abdominal Thrusts: For conscious adults and children, perform abdominal thrusts (Heimlich maneuver) to dislodge the object. Back Blows: For infants, alternate 5 back blows and 5 chest thrusts. e. Manage Fractures: Immobilize: Keep the injured limb as still as possible using splints or padding. Elevate: Raise the limb to reduce swelling. Apply Ice: Use ice packs to minimize swelling and pain, but avoid direct contact with the skin.
NLHP 6.2	Demonstartion of Chhedan(Excision), Bhedan(Incision), Lekhan(scraping) on simulator	**Steps** **Chhedan (Excision)** Preparation: Ensure all instruments are sterilized. Position the simulator appropriately and secure it.

		Identify the area for excision. Procedure: Use a scalpel to make precise cuts around the lesion or tissue to be removed. Excise the tissue completely, ensuring clear margins. Control bleeding using hemostatic techniques. Close the wound with sutures if necessary. **Bhedan (Incision)** Preparation: Sterilize instruments and position the simulator. Identify the site for incision. Procedure: Use a scalpel to make a controlled incision in the identified area. Ensure the incision is of appropriate length and depth. Observe the response of the underlying tissues. Manage any bleeding and close the incision with sutures or staples. **Lekhan (Scraping)** Preparation: Sterilize instruments and position the simulator. Identify the area requiring scraping. Procedure: Use a curette or scraping instrument to gently remove abnormal tissue or debris. Apply consistent pressure to avoid damage to underlying healthy tissues. Collect and inspect the removed material. Clean and dress the treated area.
NLHP 6.3	Demonstration of Vedhan & Visravan (Tapping Of abdomen, Hydrocele, ICD) on simulator	**Steps:** 1. **Preparation:**

		• Ensure all necessary equipment (needles, simulators, antiseptic solutions, gloves, etc.) is sterilized and ready. • Brief the students on the procedure and safety protocols. 2. **Vedhan Procedure:** • **Tapping of Abdomen:** ◦ Identify the appropriate anatomical landmarks. ◦ Clean the area with an antiseptic solution. ◦ Insert the needle at the correct angle and depth. ◦ Collect the fluid sample. • **Hydrocele Tapping:** ◦ Identify the hydrocele sac. ◦ Disinfect the area thoroughly. ◦ Insert the needle and aspirate the fluid. • **ICD (Intercostal Drainage):** ◦ Locate the intercostal space. ◦ Clean the site and administer local anesthesia. ◦ Make a small incision. ◦ Insert the ICD at the correct angle to drain fluid or air. 3. **Post-Procedure Care:** • Remove the needle or catheter carefully. • Apply a sterile dressing to the site. • Monitor for any immediate complications. 4. **Student Practice:** • Allow students to practice the procedures on the simulator under supervision. • Provide feedback and correction as needed
NLHP 6.4	Demonstration of Aharana and Eshana (extraction and probing)on simulator	**Steps:** 1. **Preparation:** • Gather all necessary equipment (probes, extraction tools, simulators, antiseptic solutions, gloves, etc.).

		• Brief the students on the procedure and emphasize the importance of maintaining aseptic conditions. 2. **Aharana (Extraction) Procedure:** • Identify the target area for extraction • Clean the area with an antiseptic solution. • Use the extraction tool carefully to remove the material or object. • Ensure complete extraction to prevent complications. 3. **Eshana (Probing) Procedure:** • Identify the anatomical landmarks and the area to be probed. • Disinfect the area thoroughly. • Gently insert the probe to explore and identify obstructions or abnormalities. • Be mindful of depth and angle to avoid causing harm. 4. **Post-Procedure Care:** • Remove the probe or extraction tool with care. • Apply a sterile dressing to the site. • Monitor the simulator for any immediate complications or reactions. 5. **Student Practice:** • Allow students to practice the procedures on the simulator under supervision. • Provide feedback, highlighting correct techniques and areas for improvement.
NLHP 6.5	Demonstration of Seevan(Suturing & Knots) and minor surgical procedures in patient / simulated environment	**Steps:** 1. **Preparation:** • Collect all required tools (suture materials, needles, forceps, scissors, antiseptic solutions, gloves, etc.). • Brief the students on the different types of sutures and knots, including their indications and techniques. 2. **Suturing Procedure:** • **Wound Assessment:** ◦ Examine the wound to determine the appropriate suture type and technique. • **Preparation of the Wound:**

- Clean the wound thoroughly with an antiseptic solution.
- Administer local anesthesia if needed.

- **Suturing:**
  - Choose the appropriate needle and suture material.
  - Begin suturing using the selected technique Vellitaka, Gophanika, Tunna Sevani and Rujugranthi etc. (simple interrupted, continuous, mattress, etc.).
  - Ensure each knot is secure and that tension is appropriate to avoid tissue strangulation.

3. **Knots Procedure:**
   - **Types of Knots:**
     - Teach students various types of surgical knots (square knot, surgeon's knot, etc.).
   - **Practice:**
     - Have students practice tying knots with different techniques and materials.
     - Emphasize the importance of secure, reliable knots in preventing wound complications.
4. **Minor Surgical Procedures:**
   - **Incision and Drainage:**
     - Perform minor procedures like incision and drainage under supervision.
     - Emphasize aseptic techniques and patient safety.
   - **Biopsy:**
     - Teach students how to perform minor biopsies, including handling and preserving tissue samples.
5. **Post-Procedure Care:**
   - Remove sutures if applicable, following proper timing and technique.
   - Apply a sterile dressing and provide wound care instructions to the patient or simulation.
6. **Student Practice:**
   - Allow students to practice the procedures on simulators or under the supervision of patients.
   - Provide immediate feedback and guidance to ensure proper technique and confidence.

Topic 7 Yogya (Experimental Surgical Training) (LH :1 NLHT: 0 NLHP: 8)										
A3	**B3**	**C3**	**D3**	**E3**	**F3**	**G3**	**H3**	**I3**	**K3**	**L3**
CO1, CO3, CO5	Appreciate the importance of simulation based teaching in surgical practice (Yogya Vidhi)	CK	MK	K	L&PPT ,L&GD, L	P-EXAM,DEB,PRN,QZ ,PP-Practical	F&S	I	-	LH
CO1, CO2, CO4, CO5, CO6	Demonstrate the necessary skills and knowledge to perform catheterization safely and effectively on patients	PSY-GUD	MK	KH	PT,D-M ,D,SDL, L_VC	P-RP,PP-Practical,DOPS,CHK,M-MOD	F&S	I	-	NLHP7.1
CO1, CO2, CO6	Demonstrate the essential skills of performing IM and IV cannulation, as well as intradermal and subcutaneous injections	PSY-GUD	MK	KH	W,CBL, PT,SDL ,SIM	PRN,PP-Practical,DOPS,P-CASE, P-VIVA	F&S	I	-	NLHP7.2
CO1, CO2, CO4, CO6	Demonstrate the practical skills necessary to perform the insertion of Ryle's tube, ensuring proficiency and patient safety.	PSY-GUD	MK	KH	PT,L_VC,D,D-BED,W	P-EXAM,DOPS,P-REC,P-MOD, P-PRF	F&S	I	-	NLHP7.3
CO1, CO2, CO4, CO6	Explain indications for surgical drain insertion along with the proper technique for surgical drain insertion.Describe post-operative care for surgical drains.	CC	MK	KH	SIM,KL ,D,L_VC,TUT	VV-Viva,P-PRF,DOPS, P-VIVA,SP	F&S	I	-	NLHP7.4

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 7.1	Catheterization -Hands-on training on Simulators	**Steps:** 1. **Preparation:** • Gather all required equipment (catheters, lubricants, antiseptic solutions, gloves, sterile drapes, etc.). • Educate students on the indications, contraindications, and potential complications of catheterization. 2. **Catheterization Procedure:** • **Patient Preparation:** ◦ Explain the procedure to the patient and obtain informed consent. ◦ Position the patient comfortably and ensure privacy. ◦ Clean the genital area with an antiseptic solution to reduce infection risk. • **Insertion of Catheter:** ◦ Choose the appropriate size and type of catheter. ◦ Lubricate the catheter tip generously. ◦ Gently insert the catheter into the urethra, guiding it towards the bladder. ◦ Ensure urine flow into the catheter before inflating the balloon (if using a Foley catheter). ◦ Secure the catheter in place and attach the drainage bag. • **Post-Insertion Care:** ◦ Secure the catheter tubing to prevent accidental dislodgment. ◦ Monitor the patient for any discomfort or complications. ◦ Educate the patient on catheter care and signs of potential issues. 3. **Catheter Removal:** • Deflate the balloon (if using a Foley catheter). • Gently withdraw the catheter, ensuring minimal discomfort to the patient. • Inspect the catheter for any abnormalities or signs of infection.

		4. **Post-Procedure Care:** • Clean the area around the urethra. • Provide instructions on hydration and hygiene. • Monitor the patient for any immediate complications. 5. **Student Practice:** • Allow students to practice the procedure on simulators or under the supervision of patients. • Provide constructive feedback and guidance to ensure correct technique and patient safety.
NLHP 7.2	IV canulation, IM / IV / Subcutaneous / Intradermal Injection	**Steps:** 1. **Preparation:** • Collect all necessary equipment (needles, syringes, cannulas, antiseptic solutions, gloves, sterile drapes, etc.). • Educate students on the indications, contraindications, and potential complications of each procedure. 2. **IM (Intramuscular) Injection:** • **Site Selection:** ◦ Choose the appropriate muscle (deltoid, gluteus, vastus lateralis, etc.). • **Preparation:** ◦ Clean the injection site with an antiseptic solution. ◦ Prepare the syringe and needle with the prescribed medication. • **Injection:** ◦ Insert the needle at a 90/45degree angle. ◦ Aspirate to ensure the needle is not in a blood vessel. ◦ Inject the medication slowly and steadily. ◦ Remove the needle and apply a sterile dressing. 3. **IV (Intravenous) Cannulation:** • **Site Selection:** ◦ Identify a suitable vein, typically in the forearm or hand.

- **Preparation:**
    - Clean the site with an antiseptic solution.
    - Apply a tourniquet to engorge the vein.
- **Cannulation:**
    - Insert the cannula at a shallow angle, ensuring blood flashback.
    - Advance the cannula into the vein and remove the needle.
    - Secure the cannula and attach the IV line or cap.

4. **Intradermal Injection:**
    - **Site Selection:**
        - Typically performed on the forearm or upper back.
    - **Preparation:**
        - Clean the site with an antiseptic solution.
        - Prepare the syringe with a fine needle and the prescribed substance.
    - **Injection:**
        - Insert the needle at a 10-15 degree angle, just under the skin.
        - Inject a small amount of the substance, forming a small bleb.
        - Remove the needle and avoid massaging the area.
5. **Subcutaneous Injection:**
    - **Site Selection:**
        - Common sites include the abdomen, thigh, or upper arm.
    - **Preparation:**
        - Clean the site with an antiseptic solution.
        - Prepare the syringe and needle with the prescribed medication.
    - **Injection:**
        - Pinch the skin to create a subcutaneous fold.
        - Insert the needle at a 45-degree angle.
        - Inject the medication slowly and steadily.
        - Remove the needle and apply a sterile dressing.
6. **Post-Procedure Care:**
    - Monitor the patient for any immediate adverse reactions.
    - Provide instructions on care and potential side effects.
7. **Student Practice:**

		• Allow students to practice the procedures on simulators or under the supervision of patients. • Provide constructive feedback and guidance to ensure correct technique and patient safety.
NLHP 7.3	Hands On Training- Ryle's tube Insertion	**Steps:** 1. **Preparation:** • Gather all necessary equipment (Ryle's tube, lubricants, antiseptic solutions, gloves, sterile drapes, etc.). • Educate students on the indications, contraindications, and potential complications of each procedure. 2. **Ryle's Tube Insertion:** • **Patient Preparation:** ◦ Explain the procedure to the patient and obtain informed consent. ◦ Position the patient in a semi-upright position. ◦ Clean the nostril with an antiseptic solution. • **Insertion Procedure:** ◦ Lubricate the tip of Ryle's tube ◦ Gently insert the tube through the nostril, directing it downwards and backward. ◦ Encourage the patient to swallow to facilitate passage of the tube into the stomach. ◦ Verify the position of the tube by aspirating stomach contents or injecting air and listening with a stethoscope. Secure the tube to the patient's nose with adhesive tape. **3. Removal of Ryle's tube :** ◦ Explain the procedure to patients

		◦ Remove slowly & smoothly using an aseptic technique. Clean the surrounding area 1. **Post-Procedure Care:** • Monitor the patient for any immediate complications. • Ensure the tubes and drains are functioning correctly. • Provide instructions on care and monitoring of the tubes
NLHP 7.4	Hands-on training -Drains	**Steps for Surgical Drain Insertion:** Pre-Insertion 1. Assess the patient's need for a surgical drain. 2. Choose the appropriate drain type (e.g., Penrose, Jackson-Pratt). 3. Prepare equipment and sterile field. Insertion 1. Make a small incision (1-2 cm) at desired site. 2. Bluntly dissect tissue to create a tract. 3. Insert drain through the tract, ensuring proper placement. 4. Secure the drain with sutures or staples. Post-Insertion 1. Connect the drain to the collection device. 2. Document drain insertion and patient's response. 3. Provide post-operative care and instructions. Potential Complications: 1. Infection 2. Hemorrhage 3. Damage to surrounding structures 4. Drain occlusion or malfunction Post-Operative Care: 1. Monitor drain output and adjust as needed.

		2. Maintain drain patency. 3. Provide wound care. 4. Remove the drain when indicated.

Topic 8 Marma (Vital points) (LH :2 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO7	Explain Marma-Nirukti and the classifications of Marma in detail.Explain Individual Marma Viddhalakshana.	CC	MK	K	L&GD, L,L&PPT	DOPS,VV-Viva,DOPS ,QZ ,P-EXAM	F&S	I	-	LH
CO1, CO6, CO7	Explain Marmaghata chikitsa and its surgical importance	CC	MK	K	L&GD, D,L&PPT ,L_VC,PER	VV-Viva,PP-Practical, T-CS,CBA, P-EXAM	F&S	I	-	LH
CO1, CO3, CO7	Identify Marma points and their manipulation techniques for treating musculoskeletal disorders (Frozen shoulder, tennis elbow, intervertebral disc prolapse, cervical spondylosis) and sports injuries.	CC	DK	KH	D-M,L &PPT , W,SIM, PT	PP-Practical,P-EXAM, P-CASE,P-VIVA,DEB	F&S	I	-	NLHP8.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 8.1	Marma identification and manipulation techniques in musculoskeletal disorders and Sports injuries	**Steps:**

1. **Preparation:**
    - Gather necessary materials (anatomical charts, markers, massage oils, gloves, etc.).
    - Brief students on the significance of Marma points and their role in Ayurveda for musculoskeletal and sports-related conditions.
2. **Identification of Marma Points:**
    - **Frozen Shoulder:**
        - Locate the vital Marma points around the shoulder girdle, such as Amsa Marma.
    - **Tennis Elbow:**
        - Identify Marma points around the elbow region, focusing on Kurpara Marma.
    - **Intervertebral Disc Prolapse:**
        - Determine the Marma points along the spine, particularly Kati and Pristha Marma.
    - **Cervical Spondylosis:**
        - Pinpoint Marma points in the neck region, including Griva Marma.
    - **Sports Injuries:**
        - Identify relevant Marma points specific to the injury location, ensuring a holistic approach to treatment.
3. **Manipulation Techniques:**
    - **Massage Techniques:**
        - Apply gentle pressure and circular motions on the identified Marma points using massage oils.
        - Demonstrate various massage strokes that stimulate blood flow and reduce inflammation.
    - **Pressure Application:**
        - Teach students how to apply the right amount of pressure on Marma points without causing discomfort.
        - Emphasize the importance of patient feedback during manipulation.
    - **Stretching and Mobilization:**
        - Combine Marma point manipulation with gentle stretching and joint mobilization exercises.
        - Focus on improving range of motion and reducing muscle tension.

		4. **Practical Demonstration:** • Allow students to practice Marma point identification and manipulation techniques on simulators or peers. • Supervise and provide feedback on their technique and approach. 5. **Post-Procedure Care:** • Advice on post-manipulation care, including rest, hydration, and gentle exercises. • Monitor for any immediate adverse reactions or discomfort.

Topic 9 Kshara Karma (LH :2 NLHT: 2 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO5	Describe Nirukti, Pradhanyata, Guna, Dosha, Karma, Prakara of KsharaExplain Arhata, Anarhata, Pradhan karma, Upadrava, and Chikitsa of Ksharkarma	CK	MK	K	L,L&PPT	PRN,P-ID, P-VIVA,INT,PP-Practical	F&S	I	-	LH
CO1, CO2	Describe the clinical application of Ksharasutra, Kshara Pratisaran, Ksharataila, Ksharavarti, and Ksharodaka in different surgical conditions.	CK	MK	K	L,L_VC,L&PPT	P-EXAM,P-PRF,T-CS, PP-Practical,VV-Viva	F&S	I	V-RS,V-RS	LH
CO1, CO2, CO7	Appraise and demonstrate Kshar and Ksharsutra preparation along with its application in Ayurveda	CE	MK	KH	D,TUT, L&PPT ,CBL,DIS	CL-PR,P-EXAM,VV-Viva,PP-Practical,INT	F&S	I	-	NLHT9.1
CO1, CO2, CO4, CO7	Describe the proper handling and care of a patient undergoing Kshrasutra therapy and the importance of sterile techniques during Kshrasutra changing.	CE	MK	KH	L_VC,SIM,TUT ,D	DOPS,PRN ,QZ ,T-CS,P-PRF	F&S	I	-	NLHT9.2
CO1, CO2,	Appraise the concepts and indications of Ksharodaka, Kshartaila, Ksharvarti, and Ksharpichu, including their preparation methods,	CE	MK	KH	L_VC,FC,TUT,	DOPS,PRN ,P-VIVA,V	F&S	I	V-RS,V-RS	NLHP9.1

CO4, CO7	uses, dosages, and application techniques.				TBL,D	V-Viva,P-EXAM				
CO1, CO2, CO4, CO7	Elaborate on the concept and technique of Kshar Karma in Anorectal disorders.	CC	MK	KH	D,SIM, D-BED, TUT,PT	P-VIVA, C-VC,T-CS,P P-Practical	F&S	I	-	NLHP9.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 9.1	Demonstration of Kshar & Kshara Sutra – Preparation, and Method of Application	Kshar : Activities: 1. Lecture: Introduction to Kshar, its history, and principles. 2. Demonstration: Preparation of Kshar using different materials (e.g., Apamarga, Ark). 3. Hands-on training: Students prepare Kshar under supervision. 4. Discussion: Quality control measures, safety precautions, and storage. 5. Practical exercise: Identify and analyze different types of Kshar. Ksharsutra : Activities: 1. Lecture: Introduction to Ksharsutra, its history, and principles. 2. Demonstration: Preparation of Ksharsutra using different threads (e.g., Snuhi, Apamarga). 3. Hands-on training: Students prepare Ksharsutra under supervision. 4. Discussion: Thread selection, preparation, and quality control. 5. Practical exercise: Apply Ksharsutra on a dummy model Common Activities: 1. Visit to a pharmacy or manufacturing unit. 2. Interaction with experts in Kshar and Ksharsutra preparation. 3. Group discussion: Case studies, indications, contraindications. 4. Written examination: Theory and practical application.
NLHT 9.2	Ksharsutra changing	**Steps-**

		Pre-Demonstration 1. Lecture: Overview of Kshrasutra therapy, indications, and contraindications. 2. Review of patient selection and preparation. 3. Discussion of necessary equipment and materials. Demonstration 1. Patient positioning and draping. 2. Sterile technique demonstration. 3. Kshrasutra removal and inspection. 4. Cleaning and preparation of the site. 5. Re-insertion of new Kshrasutra. 6. Securement and dressing application. 7. Patient education and post-procedure instructions. Post-Demonstration 1. Discussion: Common challenges and complications. 2. Hands-on practice: Students practice Kshrasutra changing under supervision. 3. Debriefing: Review of key takeaways and Q&A. Key Takeaways: 1. Maintain sterile technique throughout the procedure. 2. Ensure proper patient positioning and draping. 3. Inspect the Kshrasutra and site before removal. 4. Clean and prepare the site thoroughly. 5. Re-insert the new Kshrasutra with precision. 6. Secure and dress the site properly. 7. Provide clear patient education and post-procedure instructions. 8. Monitor for potential complications.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 9.1	Application of Ksharodaka, Kshartaila,	**Steps -**

	Ksharvarti, Ksharpichu in Dushtavrana	1. Demonstration: Preparation of Ksharodaka, Kshartaila, Ksharvarti, and Ksharpichu. 2. Hands-on training: Application techniques. 3. Practice: Students apply therapies under supervision. 4. Group discussion: Challenges and solutions. **Key Points:** 1. Ksharodaka: Liquid Kshar for wound cleansing. 2. Kshartaila: Medicated oil for wound healing. 3. Ksharvarti: Kshar impregnated thread for wound closure. 4. Ksharpichu: Kshar-soaked cotton swab for wound cleaning.
NLHP 9.2	Demonstration and Hands-on training of Kshar karma in Anorectal disorders (Arsha, Bhagandara, Nadivrana)	**Steps -** Practical 1. Demonstration: Preparation of Kshar for Arsha, Bhagandara, and Nadivrana. 2. Hands-on training: Application techniques for Kshar Karma. 3. Practice: Students apply Kshar Karma under supervision. 4. Group discussion: Challenges and solutions. Clinical 1. Live patient demonstration: Kshar Karma application. 2. Observational learning: Students observe expert application. 3. Interactive session: Q&A and discussion.

Topic 10 Agnikarma (LH :2 NLHT: 0 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO4, CO5	Describe the Mahatva, Upakarana, Vidhi, Akrutibheda, Yogya, Ayogya, and Upadrava Chikitsa of Agnikarma.	CK	MK	KH	L,DIS,D ,L&PPT	P-MOD,Log book,M-CHT,CBA, C-VC	F&S	I	-	LH

CO1, CO2, CO4	Explain Pramad Dagdha, Dhumopahat & Ushna vatatatap dagdha lakshan & Chikitsa	CK	MK	KH	PER,L, L_VC,L &PPT	PM,PRN,C L-PR, C-VC,P-REC	F&S	I	-	LH
CO1, CO2, CO4, CO7	Discuss practical skills in performing Agnikarma for pain management in Gridhrasi (sciatica) and Avabhavuka (neuralgia).	CC	MK	KH	D,PrBL, D-M,D-BED,D L	VV-Viva,P-EXAM,P-SUR,P-VIVA,SP	F&S	I	-	NLHP10.1
CO1, CO2, CO4, CO7	Discuss practical skills in performing Agnikarma for the management of surgical diseases such as Arsha (Hemorrhoids) and Charmakeel (warts).	CC	MK	KH	PT,SIM, L&GD, D-M	VV-Viva,P-PRF,PP-Practical,P-CASE,M-MOD	F&S	I	-	NLHP10.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 10.1	Hands-on experience with Agnikarma in the pain management of any one disease (Gridhrasi, Avabahuka, etc)	**Preparation Steps:** Patient History and Assessment 1. Collect detailed patient history, including the onset, duration, and nature of pain. Document any previous treatments and their outcomes. 2. Physical Examination: Perform a thorough examination to assess the affected area, noting any tenderness, swelling, or restricted movement. 3. Informed Consent: Explain the Agnikarma procedure to the patient, including its benefits and potential risks, and obtain informed consent. 4. Equipment Setup: Prepare the necessary equipment, including the Agnikarma instrument

		Agnikarma Procedure 1. Sterilization: Sterilize the Shalaka and the area to be treated. 2. Application of Heat: Heat the Shalaka until it becomes red-hot. 3. Application to the Skin: Gently touch the heated Shalaka to the skin over the affected area, creating a small burn1. Repeat this process as needed to ensure minimal discomfort to the patient. 4. Post-procedure Care: Apply a soothing ointment and cover the treated area with a sterile dressing. Provide post-procedure care instructions to the patient. Hands-on Practice with Simulators 1. Simulator Setup: Use a simulator to practice the Agnikarma technique, ensuring participants become familiar with the procedure and handling of the equipment. 2. Practice Sessions: Allow participants to practice the Agnikarma technique on the simulator, focusing on precision and minimizing discomfort. 3. Feedback and Debriefing: Provide constructive feedback and conduct a debriefing session to discuss findings and areas for improvement.
NLHP 10.2	Demonstration of Agnikarma in the management of any one surgical disease (Arsha, Charmakeel, etc)	**Preparation Steps:** Patient History and Assessment 1. Gather History: Collect detailed patient history, including the onset, duration, and nature of the condition. Document any previous treatments and their outcomes. 2. Physical Examination: Perform a thorough examination to assess the affected area, noting the size, location, and characteristics of the lesions**.** **Preparation for Agnikarma**

1. Informed Consent: Explain the Agnikarma procedure to the patient, including its benefits and potential risks, and obtain informed consent.
2. Equipment Setup: Prepare the necessary equipment, including the Agnikarma instrument (Shalaka), a heat source (e.g., flame), and sterile materials.
3. Patient Positioning: Position the patient comfortably, ensuring easy access to the affected area.

Agnikarma Procedure

1. Sterilization: Sterilize the Shalaka and the area to be treated.
2. Application of Heat: Heat the Shalaka until it becomes red-hot.
3. Application to the Skin: Gently touch the heated Shalaka to the lesions on the affected area for a fraction of a second or as required. Repeat this process as needed, ensuring minimal discomfort to the patient.
4. Post-Procedure Care: Apply Ghrit Kumari pulp over the treated area, and cover it with a sterile dressing. Provide postprocedure care instructions to the patient.

Hands-on Practice with Simulators

1. Simulator Setup: Use a simulator to practice the Agnikarma technique, ensuring participants become familiar with the procedure and handling of the equipment.
2. Practice Sessions: Allow participants to practice the Agnikarma technique on the simulator, focusing on precision and minimizing discomfort.

Topic 11 Raktamokshana (LH :3 NLHT: 0 NLHP: 6)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	**Describe** Raktamokshana Mahatva and Prakara of Siravedha,	CK	MK	KH	L&PPT ,L	T-CS,CL-PR	F&S	I	-	LH

CO1, CO2, CO4	Explain Pracchanna, Shringa, Alabu procedure, Yogya, Ayogya, Upadrava and Chikitsa.	CK	MK	KH	L&PPT ,L	Log book,CL-PR,T-CS	F&S	I	-	LH
CO1, CO2, CO4	Explain Jaloukavacharana - Yogya, Ayogya, Procedure, Upadrava and Chikitsa.	CK	MK	KH	L&PPT ,L	T-CS,CL-PR	F&S	I	-	LH
CO1, CO2, CO4, CO7	Describe siravedha (venesection) with its indications, techniques, and therapeutic benefits for disease-modifying management of conditions such as Gridhrasi (sciatica) and Uttan Vatarakta (acute gout).	CC	MK	KH	PT,D-M ,W,SIM, L&PPT	P-PRF,P-EXAM,M-CHT,SP,P-VIVA	F&S	I	-	NLHP11.1
CO1, CO2, CO4, CO7	Explain the Alabu (cupping) procedure along with its indications, techniques, and therapeutic benefits for disease-modifying management of conditions such as Kati-graha (lower back stiffness) and Manya-graha (neck stiffness).	CC	MK	KH	PT,L&PPT ,SIM ,D-M	P-POS,P-CASE,P-VIVA,M-MOD, P-EXAM	F&S	I	-	NLHP11.2
CO1, CO2, CO4, CO7	Discuss Jaloukavacharana (Leech therapy) along with its indications, techniques, and therapeutic benefits for disease-modifying management of conditions like Vidhradi (abscess) and Kushta (skin disorders).	CC	MK	KH	SIM,D-M,PT,L &PPT	P-RP,PM,P-CASE,P-MOD,RK	F&S	I	-	NLHP11.3

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 11.1	Siravedha in the management of any one surgical disease (Grudhrasi, Uttan Vatarakta, etc)	**Preparation Steps:** **Patient History and Assessment**

1. Gather History: Collect detailed patient history, including the onset, duration, and nature of symptoms. Document any previous treatments and their outcomes.
2. Physical Examination: Perform a thorough examination to assess the affected area, noting any tenderness, swelling, or restricted movement.

Preparation for Siravedha

1. Informed Consent: Explain the Siravedha procedure to the patient, including its benefits and potential risks, and obtain informed consent.
2. Equipment Setup: Prepare the necessary equipment, including a sterile lancet or needle, a tourniquet, antiseptic solution, and sterile dressings.
3. Patient Positioning: Position the patient comfortably, ensuring easy access to the selected venesection site.

Siravedha Procedure

1. Sterilization: Clean the selected site with an antiseptic solution.
2. Application of Tourniquet: Apply a tourniquet above the selected site to engorge the veins.
3. Venesection: Use a sterile lancet or needle to puncture the vein, allowing a controlled amount of blood to flow out. Monitor the patient closely during the procedure.
4. Post-Procedure Care: Remove the tourniquet, apply pressure to the site, and cover it with a sterile dressing. Provide post-procedure care instructions to the patient.

Hands-on Practice with Simulators

1. Simulator Setup: Use a simulator to practice the Siravedha technique, ensuring participants become familiar with the procedure and handling of the equipment.
2. Practice Sessions: Allow participants to practice the Siravedha technique on the simulator,

		focusing on precision and minimizing discomfort. 3. Feedback and Debriefing: Provide constructive feedback and conduct a debriefing session to discuss findings and areas for improvement.
NLHP 11.2	Alabu (cupping) procedure in the management of any one surgical disease (Kati Graham, Manya Graha, etc)	**Preparation Steps:** **Patient History and Assessment** 1. Gather History: Collect detailed patient history, including the onset, duration, and nature of symptoms. Document any previous treatments and their outcomes. 2. Physical Examination: Perform a thorough examination to assess the affected area, noting any tenderness, stiffness, or restricted movement. Preparation for Alabu 1. Informed Consent: Explain the Alabu procedure to the patient, including its benefits and potential risks, and obtain informed consent. 2. Equipment Setup: Prepare the necessary equipment, including cupping glasses, a heat source, antiseptic solution, and sterile materials. 3. Patient Positioning: Position the patient comfortably, ensuring easy access to the affected area. Alabu Procedure 1. Sterilization: Clean the selected site with antiseptic solution. 2. Heating the Cupping Glasses: Heat the inside of the cupping glasses using a flame to create a vacuum.

		3. Application to the Skin: Quickly place the heated cupping glasses on the affected area, allowing the vacuum to draw the skin into the glass. This enhances blood flow and alleviates stiffness. 4. Duration: Leave the cupping glasses in place for about 10-15 minutes, monitoring the patient for any discomfort. 5. Removal: Gently remove the cupping glasses and clean the treated area. Apply a soothing Taila / Lepa / Ghrit-kumari pulp. Hands-on Practice with Simulators 1. Simulator Setup: Use a simulator to practice the Alabu technique, ensuring participants become familiar with the procedure and handling of the equipment. 2. Practice Sessions: Allow participants to practice the Alabu technique on the simulator, focusing on precision and patient comfort. 3. Feedback and Debriefing: Provide constructive feedback and conduct a debriefing session to discuss findings and areas for improvement.
NLHP 11.3	Jaloukavcharana (Leech Therapy) in the management of any one surgical disease (Vidradhi, Dushtavrana, Koth, etc)	**Preparation Steps:** Patient History and Assessment 1. Gather History: Collect detailed patient history, including the onset, duration, and nature of symptoms. Document any previous treatments and their outcomes. 2. Physical Examination: Perform a thorough examination to assess the affected area, noting any signs of inflammation, infection, or skin changes. Preparation for Jaloukavacharana 1. Informed Consent: Explain the Jaloukavacharana procedure to the patient, including its benefits and potential risks, and obtain informed consent.

2. Equipment Setup: Prepare the necessary equipment, including medicinal Leeches, antiseptic solution, and sterile materials.
3. Patient Positioning: Position the patient comfortably, ensuring easy access to the affected area.

Jaloukavacharana Procedure

1. Sterilization: Clean the selected site to make it sterile.
2. Application of Leeches: Gently place medicinal Leech on the affected area, ensuring they attach properly. Leech begins to suck blood.
3. Duration: Allow the Leech to remain attached until they detach naturally, or if pricking pain / itching starts.
4. Post-Procedure Care: Remove the Leech and sprinkle Haridra powder over the treated area. Apply a sterile dressing. Provide post-procedure care instructions to the patient, including monitoring for any signs of infection.

Hands-on Practice with Simulators

1. Simulator Setup: Use a simulator to practice the Jaloukavacharana technique, ensuring participants become familiar with the procedure and handling of the equipment.
2. Practice Sessions: Allow participants to practice the Jaloukavacharana technique on the simulator, focusing on precision and patient comfort.
3. Feedback and Debriefing: Provide constructive feedback and conduct a debriefing session to discuss findings and areas for improvement.

Topic 12 Bandha Vidhi (LH :1 NLHT: 1 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3

CO1, CO4, CO5	Describe BandhaVidhi – Prayojana, Dravya (Pichu, Plota, Kavalika, and Vikeshika), Yogya, Ayogya, Prakara and Upadrava	CK	MK	KH	L&PPT ,L_VC, L	Log book,P RN,CL-PR	F&S	I	-	LH
CO1, CO2, CO4, CO5	Analyze Ayurvedic and modern splinting techniques, materials, and applications while integrating evidence-based practice for optimized injury management.	PSY-MEC	DK	KH	L&PPT ,L	PRN,P-MO D,P-PRF,C L-PR,P-RP	F&S	I	-	NLHT12.1
CO1, CO2, CO4	Demonstrate modern techniques of bandaging for different types of wounds and injuries. Enhance participants' confidence and proficiency in basic surgical and bandaging skills through hands-on training.	PSY-ORG	MK	SH	D-M,D,PT	M-CHT,P-EXAM,P-POS,M-POS, M-MOD	F&S	I	-	NLHP12.1
CO1, CO3, CO5	Demonstrate skills in bandaging in safely transporting injured patients using various techniques.	PSY-GUD	DK	KH	D,D-M,PT	P-RP,P-MO D,P-PRF	F&S	I	-	NLHP12.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 12.1	Training of Bandaging on Simulators with relevant modern techniques	Practical Activities 1. **Patient Demonstrations:** ◦ Demonstrate splint application on patients with different types of injuries. ◦ Highlight the differences and similarities between Ayurvedic and modern splinting techniques. ◦ **Role-Playing:**

		▪ Create role-playing scenarios where participants can practice diagnosing injuries and applying appropriate splints. ▪ Encourage feedback and discussion to improve techniques and understanding.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 12.1	Perform training of Bandaging on Simulators with relevant modern techniques	**Preparation Steps:** **Patient History and Assessment** 1. Gather History: Collect detailed patient history relevant to the surgical procedure and injury. 2. Physical Examination: Perform a thorough examination to assess the affected area, noting any signs of infection, inflammation, or other complications. **Preparation for Surgical Skills Training** 1. Informed Consent: Explain the procedure and training objectives to the participants. 2. Equipment Setup: Prepare the necessary equipment, including surgical instruments, sterile gloves, antiseptic solution, bandages, and simulators. 3. Participant Positioning: Ensure participants are comfortably positioned to perform the surgical skills and bandaging techniques. **Basic Surgical Skills Training** 1. **Hemostasis:**

		• Technique: Demonstrate methods for achieving hemostasis by adequate pressure bandaging. • Hands on Practice Allow participants to practice hemostasis techniques on simulators. • Feedback: Provide constructive feedback on effectiveness and safety. **Modern Bandaging Techniques** 1. Types of Bandages: • Demonstration: Show different types of bandage and their appropriate uses. • Hands-on Practice: Allow participants to practice applying various bandages on simulators. 2. Specialized Bandaging Techniques: • Hands-on Practice: Allow participants to practice compression bandaging on simulators. 3. Immobilization Bandaging: • Splinting and Immobilization: Demonstrate the application of splints and immobilization bandages for fractures or joint injuries. • Hands-on Practice: Allow participants to practice splinting and immobilization techniques on simulators. **Recapitulation:** Mastering basic surgical skills and modern bandaging techniques is essential for effective patient care. Hands-on practice with simulators enhances proficiency and confidence in these skills.
NLHP 12.2	Demonstration of the Transportation of injured patients (Double Human Crutch, Fireman's Lift, Two-handed Seat, etc) & Recovery Position	**Preparation Steps:** **Patient Transportation Techniques**

1. Double Human Crutch
    - Objective: Provide support to a patient who can partially bear weight but needs assistance walking.
    - Preparation: Ensure the patient is calm and inform them about the procedure.
    - Steps:
        a. Position yourself and another person on either side of the patient.
        b. Have the patient place their arms around your shoulders.
        c. Support the patient by holding them firmly around their waist or hips.
        d. Move together in a coordinated manner, with the patient taking small steps.
2. Fireman’s Lift
    - Objective: Transport an unconscious or severely injured patient over a short distance.
    - Preparation: Check the patient's responsiveness and ensure the scene is safe.
    - Steps:
        a. Lift the patient's arms and place them over your shoulders.
        b. Bend down, grasp the patient's wrist, and pull them across your shoulders.
        c. Stand up, balancing the patient’s weight evenly.
        d. Walk carefully to the desired location, ensuring the patient’s airway remains clear.
3. Two-Handed Seat
    - Objective: Provide a stable seat for an injured patient who cannot walk but can sit upright.
    - Preparation: Communicate with the patient and ensure they are ready for the move.
    - Steps:
        a. Sit the patient on the ground.
        b. Have one person stand on either side of the patient.
        c. Each person grabs their own wrist and the other's wrist, forming a seat.
        d. Lift the patient onto the seat by pulling them upwards.
        e. Move in unison to transport the patient.

Recovery Position

		1. Objective: Position an unconscious but breathing patient safely to maintain an open airway and prevent aspiration. 2. Preparation: Ensure the patient is breathing and check for any life-threatening injuries. 3. **Steps:** a. Kneel beside the patient. b. Extend the patient's arm nearest to you at a right angle to their body, with the palm facing up. c. Place the other arm across their chest, with the back of their hand against their cheek. d. Bend the knee farthest from you to a right angle. e. Carefully roll the patient onto their side by pulling on the bent knee. f. Adjust the top leg so that both the hip and knee are bent at right angles. g. Tilt the patient's head back to ensure an open airway and monitor their breathing.

Topic 13 Pranashta Shalya (LH :1 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	Describe Pranashta Shalya and NirharanaUpaya (Identification & Principles of management).	CK	MK	KH	L_VC,PER,L&PPT ,L	INT,T-CS,CL-PR,C-VC,Log book	F&S	I	-	LH
CO1, CO3, CO5	Perform skills of the Heimlich maneuver effectively along with the indications and techniques for relieving choking.	PSY-MEC	NK	SH	TBL,RP,W,PrBL	P-PRF,P-MOD,P-VIVA	F&S	I	-	NLHP13.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 13.1	Heimlich maneuver- Hands-on training (Choking)	**Preparation Steps:** **Understanding Choking** 1. Recognize Signs of Choking: • Inability to speak or breathe • Coughing or gagging • Clutching the throat (universal choking sign) • Cyanosis (bluish skin color) **Preparation for Heimlich Maneuver** 1. Equipment Setup: Use a simulator designed for practicing the Heimlich maneuver. 2. Participant Positioning: Ensure participants are comfortably positioned to perform the maneuver on the simulator. **Hands-on Practice with Simulators:** **Heimlich Maneuver Procedure** • Stand Behind the Person: Position yourself behind the choking person. • Make a Fist: Place your fist just above the person's navel (belly button). • Grasp Your Fist: With your other hand, grasp your fist. • Perform Abdominal Thrusts: Deliver quick, upward thrusts into the person's abdomen. Repeat until the object is expelled or the person becomes unconscious.

Topic 14 Fluid, Electrolyte, Acid Base Balance and Nutrition in surgical practice (LH :3 NLHT: 1 NLHP: 4)										
A3	**B3**	**C3**	**D3**	**E3**	**F3**	**G3**	**H3**	**I3**	**K3**	**L3**
CO1, CO2, CO4, CO5	Explain the physiology of fluids and electrolytes and Dehydration and over Hydration	CK	MK	KH	L_VC,L &PPT ,L	CL-PR,PM, C-VC,T-CS	F&S	I	-	LH
CO1, CO2, CO3, CO4	Describe Specific electrolyte loss,Acidosis, Alkalosis, Symptomatology and Management	CK	DK	K	PER,L, L&PPT ,L_VC	CL-PR, C-VC,PM,T-CS,PRN	F&S	I	-	LH
CO1, CO3, CO4, CO5	Describe the Parental Nutrition.	CK	MK	K	L,L&PPT ,L_VC	T-CS,Log book,CL-PR, C-VC	F&S	I	-	LH
CO1, CO2, CO3, CO4	Evaluate electrolyte imbalances by identifying clinical manifestations, analyzing their systemic effects, and formulating appropriate management strategies for restoration.	CS	DK	KH	L_VC,PBL,DIS, L&GD	P-PS,PM,P-EXAM,P-CASE,P-PRF	F&S	I	-	NLHT14.1
CO1, CO3, CO6	Critically evaluate fluid therapy selection by calculating requirements based on physiological needs and clinical decision-making in conditions like dehydration, shock, and burns.	CE	DK	KH	PT,L&PPT ,L,RP	P-EXAM,P-RP,P-PS,P-VIVA,P-CASE	F&S	I	-	NLHP14.1
CO1, CO3, CO6	Integrate knowledge of physiological mechanisms and clinical implications to assess, diagnose, and manage acid-base imbalances using arterial blood gas (ABG) analysis and targeted interventions.	CC	DK	KH	PT,PBL ,CD,L_VC,D	P-PS,P-EXAM,P-VIVA,P-MOD	F&S	I	-	NLHP14.2

Non Lecture Hour Theory		
S.No	**Name of Activity**	**Description of Theory Activity**
NLHT 14.1	Electrolyte loss	Present real-life scenarios of patients with electrolyte imbalance. Assign students topics like "Importance of Sodium" or "Dangers of Potassium Deficiency." Electrolyte imbalance role-play: Divide students into patient and healthcare provider roles. Electrolyte solution preparation: Have students prepare electrolyte solutions.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 14.1	Calculations & selections of fluids in various conditions like Dehydration, Shock& Burns	**Preparation Steps:** **Understanding Fluid Therapy** 1. **Types of Fluids:** • Crystalloids: Normal saline, Ringer's lactate, D5W (5% dextrose in water). • Colloids: Albumin, Dextran, etc. 2. **Indications:** • Dehydration: Assess severity (mild, moderate, severe) to determine fluid needs. • Shock: Differentiate between hypovolemic, cardiogenic, septic, and anaphylactic shock. • Burns: Calculate fluid requirements using formulas like the Parkland formula. **Calculation and Selection of Fluids** 1. Dehydration: • Assessment: Evaluate symptoms (dry mouth, skin turgor, hypotension, tachycardia)

and laboratory findings (serum electrolytes, BUN, S. creatinine).

- Calculation:
  - Mild: Oral rehydration solutions.
  - Moderate: IV fluids at a rate of 50-100 mL/kg over 4-6 hours.
  - Severe: Rapid IV fluids, e.g., 20 mL/kg bolus of normal saline.

2. Shock:
   - Assessment: Monitor vital signs (BP, heart rate), urine output, and perfusion status.
   - Calculation:
     - Hypovolemic shock: 20 mL/kg bolus of crystalloid, reassess and repeat as needed.
     - Septic shock: Initial 30 mL/kg of crystalloid within the first 3 hours.
     - Cardiogenic shock: Use smaller fluid boluses (250 mL) cautiously, consider inotropes.
     - Anaphylactic shock: Epinephrine first, then 1-2 L of crystalloid rapidly.
3. **Burns:**
   - Assessment: Calculate total body surface area (TBSA) burned.
   - Calculation:
     - Parkland formula: 4 mL/kg per %TBSA burned of Ringer's lactate for the first 24 hours.
     - Administer half of the total in the first 8 hours and the remaining half over the next 16 hours.

Hands-on Practice with Simulators

1. Simulator Setup: Use simulators to replicate clinical scenarios for dehydration, shock, and burns.
2. Practice Sessions: Allow participants to perform fluid calculations and administer fluids on the simulators.

NLHP 14.2	Acid Base Balance in various conditions like perforation, vomiting, etc	**Preparation Steps:** **Understanding Acid-Base Balance** 1. **Basic Concepts**: • pH, PCO2, HCO3- levels, and their normal ranges. 2. **Types of Imbalances:** • Metabolic Acidosis: Low pH, low HCO3- (e.g., due to renal failure, lactic acidosis). • Metabolic Alkalosis: High pH, high HCO3- (e.g., due to vomiting, diuretic use). • Respiratory Acidosis: Low pH, high PCO2 (e.g., due to COPD, hypoventilation). • Respiratory Alkalosis: High pH, low PCO2 (e.g., due to hyperventilation, anxiety). **Assessment and Diagnosis** 1. Patient History: • Gather detailed history relevant to the condition (e.g., history of gastrointestinal perforation, episodes of vomiting). • Document any medications or underlying medical conditions. 2. Physical Examination: • Perform a thorough physical examination to assess signs of dehydration, respiratory distress, or other relevant symptoms. 3. Laboratory Tests: • Order arterial blood gas (ABG) analysis to determine pH, PCO2, HCO3-, and other parameters. • Conduct additional tests such as serum electrolytes, blood urea nitrogen (BUN), and creatinine. **Group Discussion and Case Studies**

		1. **Case Presentation**: • Present real-life scenarios for conditions like perforation and vomiting. • Discuss the initial assessment, ABG interpretation, and management plan. 2. **Interactive Discussion:** • Encourage participants to share their approaches and reasoning. • Facilitate a discussion on different strategies and best practices in managing acid-base imbalances. **Hands-on Practice with Simulators** 1. Simulator Setup: Use simulators to replicate clinical scenarios of acid-base disturbances. 2. Practice Sessions: Allow participants to perform ABG interpretation and implement corrective measures on the simulators.

Topic 15 Rakta (LH :2 NLHT: 2 NLHP: 0)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	Describe Rakta Mahatwa, and Rakta as chuturta dosa	CK	MK	K	L_VC,PER,L&PPT ,L	CL-PR, C-VC,T-CS	F&S	I	-	LH
CO1, CO2, CO4	Explain Raktasrava , Prakara and Lakshana. along with Haemorrhage and its management	CK	MK	K	L,L&PPT ,L_VC,PER	T-CS,CL-PR,PRN	F&S	I	-	LH
CO1, CO2, CO4	Formulate comprehensive haemostasis management by evaluating bleeding and thrombotic disorders, determining intervention urgency, assessing treatment response, and optimizing long-term care strategies.	PSY-ADT	DK	KH	PT,D	SP,P-EXAM,P-VIVA	F&S	I	-	NLHT15.1
CO1, CO2,	Define blood transfusion and its indicationsAssess patients for blood transfusion needs.	PSY-GUD	MK	SH	SIM,TBL,PER,	P-CASE,P-EXAM,CL-	F&S	I	-	NLHT15.2

CO4, CO6	Explain the importance of compatibility testing. Recognize the risks and benefits of blood transfusion.				DIS,PBL	PR,PRN				

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 15.1	Describe Rakta stambhana and methodsof Haemostasis.	Simulate a patient with bleeding disorder. . Simulate a patient with thrombotic disorder. . Simulate haemostasis laboratory tests.
NLHT 15.2	Describe Blood Transfusion –Blood groups, Compatibility, Indications, Contraindications, Complications, Management. along with Component therapy	Present real-life scenarios of patients requiring blood transfusion Divide students into patient and healthcare provider roles. Have students identify and label different blood components. Simulate Blood Transfusion Reactions.

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity

Topic 16 Life Saving and Emergency Medicines in surgical practice (Prana Rakshaka and Atyayika Dravya) (LH :3 NLHT: 0 NLHP: 0)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO4, CO6, CO7	Describe Antibiotics- Classification ,Dose, Indications & Contraindications	CC	MK	K	L_VC,L	CHK,T-CS, C-VC,RK,Log book	F&S	I	-	LH

CO1, CO2, CO4, CO5, CO6	Describe Analgesics, anti-inflammatory medicines with Classification , Dose ,Indications & Contraindications	CK	MK	KH	L&PPT ,L,L_V C	PRN,CHK, CL-PR,T-CS	F&S	I	-	LH
CO1, CO2, CO4, CO5, CO6	Describe Emergency medicines**,** viz. Atropine, Adrenaline, Dopamine, Mephentine hydrochloride, Hydrocortisone, Dexamethasone, Antiemetics, Dose, Indications & Contraindications, in surgical practice.	CK	MK	K	L_VC,L ,L&PPT	CHK,PRN, T-CS,CL-PR	F&S	I	-	LH

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity

Topic 17 Naidanik Vidhi (Diagnostic techniques) (LH :2 NLHT: 0 NLHP: 6)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO4, CO5, CO6, CO7	Describe Diagnostic imaging techniques, viz. Chhaya Vikiran (X-ray), Avayava Pariksha (Ultrasonography, CAT Scan, MRI) - Principles, Method, Indications and Contraindications.	CK	MK	K	X-Ray, L&PPT ,L_VC, L	C-VC,CL-PR,T-CS,PRN	F&S	I	-	LH
CO1, CO3, CO5, CO6	Explain Biopsy / Cytological study.	CK	MK	K	L&PPT ,L,L_V C	CHK,CL-PR,T-CS, C-VC	F&S	I	-	LH

CO1, CO3, CO6	Define X-rays and their application in medical imaging and their role in diagnostic decision-making.Identify different types of X-ray examinations .	CK	MK	SH	L&PPT ,PT,X-Ray,L_VC,CD	QZ ,P-VIVA,CL-PR,P-EXAM,PP-Practical	F&S	I	-	NLHP17.1
CO1, CO3, CO5, CO6	Describe Principles and applications in medical imaging and its role in diagnostic decision-making. Recognize the limitations and contraindications of medical imaging.	CK	NK	K	D,PT,PL,RP,SIM	CL-PR,PRN,CHK	F&S	I	-	NLHP17.2
CO1, CO5, CO6	Demonstrate proficiency in biopsy procedures by selecting appropriate equipment, ensuring patient preparation, executing safe techniques, managing specimens, and identifying potential complications.	CK	NK	K	D,SIM	P-EXAM	F&S	I	-	NLHP17.3

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 17.1	Demonstration of Chhaya vikiran (X-ray) of Chest, Abdomen, Urology. and Musculoskeletal organs	**steps to learn and demonstrate Chhaya Vikiran (X-ray) of Chest, Abdomen, Urology and Musculoskeletal:** Steps to Learn and Demonstrate Chhaya Vikiran (X-ray) **Chest X-ray** **1. Normal Anatomy:** Learn to identify normal structures such as lungs, heart, mediastinum, diaphragm, and ribcage. **2. Abnormal Findings**: Recognize common abnormalities such as lung nodules, pneumonia, pleural effusion, and cardiomegaly. **3. Systematic Approach:** Develop a systematic approach to interpreting chest X-rays, including evaluating the lungs, heart, mediastinum, and diaphragm. **4. Practice:** Practice interpreting chest X-rays using online resources, textbooks, or with a radiologist.

		Abdominal X-ray **1. Normal Anatomy**: Learn to identify normal structures such as the liver, spleen, kidneys, and intestines. **2. Abnormal Findings**: Recognize common abnormalities such as kidney stones, bowel obstruction, and free air. **3. Systematic Approach**: Develop a systematic approach to interpreting abdominal X-rays, including evaluating the liver, spleen, kidneys, and intestines. **4. Practice:** Practice interpreting abdominal X-rays using online resources, textbooks, or with a radiologist. **Urology X-ray** **1. Normal Anatomy:** Learn to identify normal structures such as the kidneys, ureters, and bladder. **2. Abnormal Findings:** Recognize common abnormalities such as kidney stones, ureteral obstruction, and bladder tumors. **3. Systematic Approach:** Develop a systematic approach to interpreting urology X-rays, including evaluating the kidneys, ureters, and bladder. **4. Practice:** Practice interpreting urology X-rays using online resources, textbooks, or with a radiologist. **Musculoskeletal X-ray** **1. Normal Anatomy**: Learn to identify normal structures such as bones, joints, and soft tissues. **2. Abnormal Findings:** Recognize common abnormalities such as fractures, osteoporosis, and joint effusions. **3. Systematic Approach:** Develop a systematic approach to interpreting musculoskeletal X-rays, including evaluating bones, joints, and soft tissues. **4. Practice:** Practice interpreting musculoskeletal X-rays using online resources, textbooks, or with a radiologist.
NLHP 17.2	Avayava pariksha (CT,MRI) of Chest, abdomen, Urology bones & joints	**Steps to learn CT and MRI of Abdomen:** **Step 1: Review Patient's Clinical History and Indications** - Understand the patient's symptoms, medical history, and reasons for the CT scan - Familiarize yourself with the CT scan protocol and parameters

Step 2: Systematically Evaluate Abdominal Organs

- Liver:
  - Evaluate size, shape, and density
  - Look for lesions, cysts, or tumors
- Spleen:
  - Evaluate size and density
  - Look for lesions or infarcts
- Pancreas:
  - Evaluate size, shape, and density
  - Look for lesions, cysts, or tumors
- Kidneys:
  - Evaluate size, shape, and density
  - Look for lesions, cysts, or stones
- Gastrointestinal Tract:
  - Evaluate bowel wall thickness, density, and patency
  - Look for lesions, obstruction, or free fluid

Step 3: Evaluate Vascular and Lymphatic Structures

- Aorta and Major Branches:
  - Evaluate size, shape, and density
  - Look for aneurysms, stenosis, or dissection
- Portal and Hepatic Veins:
  - Evaluate size, shape, and density
  - Look for thrombosis or obstruction
- Lymph Nodes:
  - Evaluate size, shape, and density
  - Look for enlargement or abnormal morphology

Step 4: Look for Additional Findings

- Free Fluid or Hemorrhage:
  - Evaluate location, extent, and density
- Bone or Soft Tissue Lesions:

		- Evaluate size, shape, and density - Look for destruction or erosion **Step 5: Correlate Findings with Clinical History and Indications** - Integrate imaging findings with patient's symptoms, medical history, and laboratory results - Consider alternative diagnoses and differential diagnoses **Step 6: Document and Communicate Findings** - Clearly document imaging findings in a structured report - Communicate findings to the referring physician or radiologist **Similar to this, steps to learn CT and MRI of Chest, Urology, Bones and Joints-** **Chest** **1. CT Chest:** Show a CT scan of the chest, pointing out the lungs, heart, and major blood vessels. **2. MRI Chest**: Show an MRI scan of the chest, highlighting the mediastinum, lungs, and chest wall. **3. Normal and Abnormal Findings:** Compare normal and abnormal findings, such as lung nodules, pleural effusion, or mediastinal masses. **Urology:** **1. CT Urography:** Show a CT urogram, pointing out the kidneys, ureters, and bladder. **2. MRI Urography**: Show an MRI urogram, highlighting the kidneys, ureters, and bladder. **3. Normal and Abnormal Findings:** Compare normal and abnormal findings, such as kidney stones, ureteral obstruction, or bladder tumors. **Bones and Joints:** **1. CT Bones:** Show a CT scan of the bones, pointing out the spine, pelvis, and long bones. **2. MRI Bones**: Show an MRI scan of the bones, highlighting the bone marrow, joints, and surrounding soft tissues. **3. Normal and Abnormal Findings:** Compare normal and abnormal findings, such as bone fractures, osteoporosis, or joint effusions.
NLHP 17.3	Hands on training of different types of Biopsy	The steps for training undergraduates in different types of biopsies: **Fine Needle Aspiration Biopsy (FNAB)** 1. Theoretical foundation: Understand the principles and indications of FNAB. 2. Simulation training: Practice FNAB on simulated models or phantoms.

		3. Observation: Observe experienced practitioners performing FNAB. 4. Assisted practice: Assist experienced practitioners during FNAB procedures. **Core Needle Biopsy (CNB)** 1. Theoretical foundation: Understand the principles and indications of CNB. 2. Simulation training: Practice CNB on simulated models or phantoms. 3. Observation: Observe experienced practitioners performing CNB. 4. Assisted practice: Assist experienced practitioners during CNB procedures. **Incisional Biopsy** 1. Theoretical foundation: Understand the principles and indications of incisional biopsy. 2. Simulation training: Practice incisional biopsy on simulated models or phantoms. 3. Observation: Observe experienced practitioners performing incisional biopsy. 4. Assisted practice: Assist experienced practitioners during incisional biopsy procedures. **Excisional Biopsy** 1. Theoretical foundation: Understand the principles and indications of excisional biopsy. 2. Simulation training: Practice excisional biopsy on simulated models or phantoms. 3. Observation: Observe experienced practitioners performing excisional biopsy. 4. Assisted practice: Assist experienced practitioners during excisional biopsy procedures. **Endoscopic Biopsy** 1. Theoretical foundation: Understand the principles and indications of endoscopic biopsy. 2. Simulation training: Practice endoscopic biopsy on simulated models or phantoms. 3. Observation: Observe experienced practitioners performing endoscopic biopsy. 4. Assisted practice: Assist experienced practitioners during endoscopic biopsy procedures.

Topic 18 Shat Kriyakala in surgical practice (LH :1 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4,	Explain Shat Kriyakala in surgical practice.	CK	MK	KH	L_VC,L ,L&PPT	CL-PR,T-CS	F&S	II	-	LH

CO5										
CO1, CO4, CO7	Integrate the principles of Shatkriyakala to assess disease progression and implement appropriate surgical interventions for conditions like Arsha, Bhagandara, appendicitis, and cholecystitis.	CC	MK	K	L&PPT ,CBL,DIS	P-EXAM	F&S	II	V-KS	NLHP18.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 18.1	Surgical intervention according to Shatkriyakala - Special focus on Arsha, Bhagandara, and infective pathology ex.Appendicitis, Cholecystitis, etc.	**Steps** Shatkriyakala (Six Stages of Disease Progression and stages of treatment) Preparation: Review the patient's medical history and symptoms. Determine the stage of the disease based on Shatkriyakala principles. Plan the surgical intervention accordingly. **Surgical Intervention:** Stage 1 (Sanchaya): Early intervention to prevent disease progression. Stage 2 (prakopa): Addressing the initial symptoms and preventing complications. Stage 3 (prasara): Treating the disease before it becomes chronic. Stage 4 (sthanasamshraya): Managing the acute phase of the disease. Stage 5 (vyakta): Differentiating between similar diseases and targeting the specific one. Stage 6 (bedha): Treating the fully developed disease and preventing recurrence. Arshabhagandhara (Piles and Fistula-in-Ano) **Preparation:** Review the patient's symptoms and medical history. Perform diagnostic tests to confirm the condition. Plan the surgical procedure based on the severity of the condition .**Surgical Intervention:**

		Piles: Perform procedures like hemorrhoidectomy or stapled hemorrhoidopexy to remove or reduce hemorrhoids. Fistula-in-Ano: Perform fistulotomy or seton placement to treat the fistula. Infective Pathologies (Appendicitis and Cholecystitis) **Preparation**: Review the patient's symptoms, medical history, and diagnostic tests. Plan the surgical intervention based on the severity of the infection. Surgical Intervention: Appendicitis: Perform an appendectomy (laparoscopic or open) to remove the inflamed appendix. Cholecystitis: Perform a cholecystectomy (laparoscopic or open) to remove the inflamed gallbladder.

Topic 19 Samanya Vyadhi Parichaya (LH :6 NLHT: 3 NLHP: 6)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	Describe the importance of the body's response to injury or infectionIdentify the signs and symptoms along with different stages of Vranashotha	CK	MK	K	D,SIM, L&PPT ,D-M,PER	P-POS,PRN,P-MOD, P-EXAM,P-CASE	F&S	II	-	NLHT19.1
CO1, CO2, CO4	Explain Nidana, Samprapti, Prakara, Lakshana, Sadhya-asadhyata, Upadrava and Chikitsa of Vidhradi (Abscess) & Pidika (Boils)	CK	MK	K	L&PPT ,L_VC, L	Log book,CL-PR,M-MOD,COM, C-VC	F&S	II	-	LH
CO1, CO2, CO4	Describe Etiopathogenesis, Classifications, Complications & Management of DagdhaVrana (Burns and Scalds)	CK	MK	K	L_VC,L &PPT ,L,PER	M-CHT,M-MOD,M-POS,CL-PR,T-CS	F&S	II	-	LH
CO1,	Explain Marmaghata (shock) Definition, Classification,	CK	MK	K	L_VC,L	C-VC,CL-	F&S	II	-	LH

CO2, CO4, CO6	Etiopathogenesis, Clinical features, Diagnosis & management				&PPT ,PER,L	PR,PRN,T-CS				
CO1, CO2, CO4, CO6	Explain Etiopathogenesis Clinical features Diagnosis & management of Cardiogenic & Septic Shock & crush syndrome	CK	MK	K	L,L&PPT ,L_VC	T-CS,CL-PR,PRN	F&S	II	-	LH
CO1, CO2, CO5, CO6	Identify causes, risk factors, signs and symptoms and the importance of KothaUnderstand the role of bacterial infection in Kotha (Gangrene)	CK	MK	SH	PER,L,D,L_VC ,D-M	M-POS,DEB,PRN,M-CHT,CL-PR	F&S	II	-	NLHT19.2
CO1, CO2, CO4	Explain Nidana, types, Samprapti, Lakshana and Chikitsa of Granthi (Dermoid Cyst &Sabacious Cyst)	CK	MK	K	L_VC,L ,L&PPT	CL-PR,T-CS	F&S	II	-	LH
CO1, CO2, CO4	Explain the Nidana, types, Samprapti, Lakshana and Chikitsa of Arbuda	CK	MK	K	L,L&PPT ,L_VC	T-CS	F&S	II	-	LH
CO1, CO2, CO4	Illustrate the risk factors for tumor developmentDescribe tumor classification systemsExplain the importance of early detection and diagnosis	CAP	MK	K	L&PPT ,PER,DIS,TUT,D	PP-Practical,P-VIVA,PRN,VV-Viva,CL-PR	F&S	II	-	NLHT19.3
CO1, CO2, CO4	Define the characteristics of lumps or swellings along with a systematic examination to evaluate lumps or swellings.Differentiate between benign and malignant lumps.	CK	MK	K	RP,PER ,L_VC, TPW,D-BED	CHK,CL-PR,Mini-CEX,P-VIVA, VV-Viva	F&S	II	-	NLHP19.1
CO1, CO2,	Explain the pathophysiology of shock. Identify risk factors and causes of shock.	CK	MK	K	L&GD, PT,SIM,	SP,P-RP,P-VIVA	F&S	II	-	NLHP19.2

CO4, CO6	Describe the signs and symptoms of shock with its stages				PSM,RP					
CO1, CO3, CO6	Explain the principles of assessing and examining burn injuries with a systematic approach to evaluate burn cases.	CK	MK	K	L_VC,PER,D,PT,SIM	P-POS,PRN,P-MOD,P-VIVA,P-RP	F&S	II	-	NLHP19.3

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 19.1	Vranashotha-Nirukti, Nidana, Samprapti, Prakara, Lakshana, Sadhya-asadhyata, Upadrava and Chikitsa	Create a simulated patient scenario where students have to assess and manage inflammation. Quiz on Inflammation
NLHT 19.2	Explain etiopathogenesis, types, Clinical Features, Investigations, Differential Diagnosis, complications and management of Kotha (Gangrene)	Present real-life scenarios of patients with gangrene. Practice wound care and debridement techniques.
NLHT 19.3	Definition, Classification, Clinical features, Complications of Tumour	Lecture and Discussion Activities 1. Case studies: Present real-life scenarios of patients with tumors. 2. Debate: Assign students topics like "The Role of Genetics in Tumor Development" or "The Benefits and Risks of Tumor Surgery". 3. Tumor biology lecture: Provide an overview of tumor biology and pathogenesis. Interactive Activities 1. Tumor simulation: Create a simulated patient scenario where students have to diagnose and manage tumors. 2. "Tumor Jeopardy": Create a game show-style quiz. 3. Tumor puzzle: Create a puzzle where students match tumor types with corresponding symptoms. Group Activities 1. Create a poster or infographic: Assign groups a type of tumor to research and illustrate.

		2. Tumor role-play: Divide students into patient and healthcare provider roles. 3. "Tumor Challenge": Divide students into teams to solve tumor-related problems. Hands-on Activities Assessment Activities 1. Tumor quiz. 2. Case study analysis and presentation. 3. Reflective journaling: Ask students to reflect on their learning.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 19.1	Examination of Granthi (lump or Swelling)	**Steps** 1. Patient History: Ask about the duration and onset of the lump/swelling. Inquire about associated symptoms such as pain, fever, weight loss, or changes in size. Review any past medical history, including previous lumps or related conditions. Ask about family history of cancers or other relevant diseases. 2. Inspection: Position the patient comfortably and ensure good lighting. Observe the size, shape, and location of the lump. Note any changes in skin color or the presence of scars, ulcers, or visible pulsations. 3. Palpation: Wash your hands thoroughly before examination. Use the pads of your fingers to palpate the lump gently. Assess the following characteristics: Size: Measure the lump in two dimensions (length and width). Shape: Determine if it is round, oval, or irregular. Surface: Check if it is smooth, nodular, or irregular. Consistency: Identify if it is soft, firm, hard, or rubbery.

		Tenderness: Note any pain or discomfort on palpation. Mobility: Check if the lump is mobile or fixed to underlying structures. Temperature: Feel for any warmth over the lump, indicating inflammation. Fluctuation: Determine if the lump contains fluid by gently pressing on it. 4. Transillumination (if applicable): Darken the room and use a flashlight or penlight to shine through the lump. Fluid-filled lumps (e.g., cysts) may transilluminate, while solid masses will not. 5. Auscultation (if applicable): Use a stethoscope to listen for any bruits or abnormal sounds over the lump, especially if it is pulsatile. 6. Special Tests: Needle Aspiration or Biopsy: Perform if indicated to obtain a sample for cytological or histological examination. 7. Documentation: Record all findings meticulously, including the patient's history, examination findings, and any special tests performed. Note the characteristics of the lump and any associated symptoms.
NLHP 19.2	Emergency management in different types of shock	Steps Case Presentation/PBL/Role Play Hypovolemic Shock Case Presentation: Scenario: A patient presents with severe blood loss following a traumatic injury. They exhibit signs of tachycardia, hypotension, cold and clammy skin. Steps: Assessment: Evaluate the airway, breathing, and circulation (ABCs). Fluid Resuscitation: Administer crystalloids (normal saline or Ringer's lactate) rapidly. Stop the Bleeding: Apply pressure to external wounds, consider surgical intervention if necessary. Monitoring: Continuously monitor vital signs, urine output, and mental status. Cardiogenic Shock

Case Presentation:
Scenario: A patient with a history of myocardial infarction presents with chest pain, dyspnea, hypotension, and jugular venous distention.
Steps:
Assessment: Evaluate the ABCs, obtain a 12-lead ECG.
Oxygen Therapy: Administer high-flow oxygen.
Medications: Initiate inotropes (e.g., dobutamine) to improve cardiac output.
Revascularization: Prepare for possible percutaneous coronary intervention (PCI) or thrombolytic therapy.
Distributive Shock (Septic Shock)
Case Presentation:
Scenario: A patient with a severe infection presents with fever, hypotension, warm skin, and altered mental status.
Steps:
Assessment: Evaluate the ABCs, obtain blood cultures.
Antibiotics: Administer broad-spectrum antibiotics as soon as possible.
Fluid Resuscitation: Administer crystalloids to restore perfusion.
Vasopressors: Initiate vasopressors (e.g., norepinephrine) if hypotension persists despite fluid resuscitation.
Distributive Shock (Anaphylactic Shock)
Case Presentation:
Scenario: A patient presents with a sudden onset of hives, swelling, wheezing, and hypotension after exposure to an allergen.
Steps:
Assessment: Evaluate the ABCs.
Epinephrine: Administer intramuscular epinephrine immediately.
Oxygen Therapy: Provide supplemental oxygen.
Medications: Administer antihistamines (e.g., diphenhydramine) and corticosteroids (e.g., methylprednisolone).
Fluid Resuscitation: Administer crystalloids to maintain blood pressure.

		Obstructive Shock Case Presentation: Scenario: A patient with a history of deep vein thrombosis presents with sudden chest pain, dyspnea, and hypotension. Steps: Assessment: Evaluate the ABCs, obtain imaging (e.g., chest CT) to identify the obstruction. Oxygen Therapy: Administer high-flow oxygen. Relieve Obstruction: Consider thrombolytic therapy or surgical intervention to remove the obstruction. Monitoring: Continuously monitor vital signs and oxygen saturation.
NLHP 19.3	Assessment, examination, and documentation of Pramada Dagda (Burn) case	**Steps** **1. Initial Assessment:** Ensure Safety: Ensure the safety of both the patient and healthcare providers. Primary Survey: Airway: Check for airway patency, inhalation injury, or soot around the nose/mouth. Breathing: Assess respiratory rate and effort, listen for breath sounds, and check oxygen saturation. Circulation: Check heart rate, blood pressure, and signs of shock. Establish IV access. Disability: Evaluate neurological status using the AVPU scale (Alert, Verbal, Pain, Unresponsive). Exposure: Remove clothing and jewelry to assess the extent of burns. Maintain body temperature. **2. Secondary Assessment:** History Taking: Mechanism of Injury: Determine the cause (thermal, chemical, electrical, etc.). Time of Injury: Establish the time since the burn occurred. Past Medical History: Inquire about previous medical conditions, medications, and allergies. Tetanus Status: Check the patient's tetanus immunization history. Physical Examination: Extent of Burns: Use the Rule of Nines or Lund-Browder chart to estimate the total body surface area (TBSA) affected. Depth of Burns: Classify burns as superficial, partial-thickness, or full-thickness based on appearance

		and sensation. Associated Injuries: Assess for other injuries related to the burn incident (e.g., fractures, head injury). **3. Documentation:** Patient Information: Record the patient's demographics, medical history, and details of the burn incident. Burn Assessment: Location and Extent: Document the location, size, and percentage of TBSA affected. Depth: Note the depth and classification of burns. Symptoms: Record pain, blisters, edema, or any signs of infection. Interventions: Initial Treatment: Note any pre-hospital care provided. Medications: Record analgesics, antibiotics, and other medications administered. IV Fluids: Document the type and amount of fluids given. Follow-Up Plan: Outline the plan for ongoing care, dressing changes, and referral to a burn unit if necessary.

Topic 20 Vrana (LH :7 NLHT: 2 NLHP: 6)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO3, CO4, CO5	Explain the Nirukti ,Prakara,Nidana, Samprapti, , Prakara, Lakshana, Vrana Pariksha, Vrana Sadhya Asadhyatha of vrana and vrana vastu	CK	MK	K	L&PPT ,L,L_VC	CL-PR,T-CS	F&S	II	-	LH
CO1, CO2, CO4	Explain the Vrana Avastha of Dustavrana, Shuddha Vrana, Ruhyamana Vrana, Samyak Roodha Vrana and Vrana Upadrava	CK	MK	K	L,L_VC ,L&PPT	T-CS,CL-PR	F&S	II	-	LH
CO1, CO2,	Explain Vrana Chikitsa, Pathya-apathya and Shashti Upakrama – first 21 upakramas (poorva karma to vrana)	CK	MK	K	L_VC,L &PPT	PRN,CL-PR,T-CS	F&S	II	-	LH

CO4					,L					
CO1, CO2, CO4	Explain Shashti Upakrama –22- 40 upakramas	CK	MK	K	L&PPT ,L,L_V C	T-CS,CL-PR,PRN	F&S	II	-	LH
CO1, CO2, CO4	Explain Shashti Upakramas – 40 - 60 upakramas	CK	MK	K	L&PPT ,L,L_V C	CL-PR,PRN,T-CS	F&S	II	-	LH
CO1, CO2, CO4	Describe Ulcer – Definition, types, and wound healing stages and management	CK	MK	K	L&PPT ,L,L_V C	M-MOD,M-CHT,T-CS ,CL-PR,COM	F&S	II	-	LH
CO1, CO2, CO4	Explain Prameha pidaka - carbuncle and Diabetic wounds/ulcer	CK	MK	K	L&PPT ,L,L_V C	M-CHT,CL-PR,COM, T-CS,M-POS	F&S	II	-	LH
CO1, CO2, CO4	Identify wound healing phase & risk factors for wound complications (e.g., infection, dehiscence). Describe wound assessment techniques (e.g., visual inspection, measurement) & wound care principles	CK	MK	K	RP,PER ,D,SIM, D-M	PRN,DEB, CL-PR,INT	F&S	II	-	NLHT20.1
CO1, CO2, CO4	Identify the characteristics and causes of an ulcer and thorough examination to evaluate the ulcer.Differentiate between various types of ulcers.	CK	MK	K	CD,PT, RP,PER ,D-M	P-VIVA,P-EXAM,PRN,P-MOD,P-PS	F&S	II	-	NLHP20.1
CO1, CO2, CO4, CO5	Explain the function of the peripheral nervous system, Identify any abnormalities, and localize potential lesions accordingly.	CC	MK	K	PT,PER	PRN,P-EXAM,P-VIVA	F&S	II	-	NLHP20.2

CO1, CO2, CO4	Analyze the pathogenesis, risk factors, microbial causes, prevention strategies, and clinical presentation of Surgical Site Infections (SSIs) to enhance early diagnosis and effective management.	CC	MK	K	SIM,PER,RP	P-VIVA,PUZ,QZ ,VV-Viva,P-EXAM	F&S	II	-	NLHT20.2
CO1, CO2, CO4	Demonstrate the students on the correct procedure for wound dressing, ensuring optimal healing and preventing infection for training purpose	PSY-GUD	MK	KH	D-BED,TUT,PT,DIS,D	C-VC,OSPE,P-VIVA,CHK,INT	F&S	II	-	NLHP20.3

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 20.1	Sadhyovrana -(Traumatic wounds) – Nidana, Prakara, Lakshana, Upadrava and Chikitsa.	Present real-life traumatic wound cases. Analyze wound management decisions Develop treatment plans. Develop a wound management checklist. Role-play traumatic wound scenarios.
NLHT 20.2	Surgical site infection.	Present real-life SSI cases for group discussion. Analyze SSI prevention measures and outcomes. Develop SSI prevention plans.

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 20.1	Examination of an Ulcer	**Steps** 1. Patient History: Onset and Duration: Ask when the ulcer first appeared and how long it has been present.

		Symptoms: Inquire about pain, discharge, bleeding, itching, and any other associated symptoms. Medical History: Review any underlying medical conditions such as diabetes, vascular diseases, or previous ulcers. Lifestyle Factors: Discuss smoking, alcohol use, diet, and any recent trauma or injury. 2. Inspection: Location and Size: Measure the ulcer and note its exact location on the body. Shape and Edges: Describe the shape (round, oval, irregular) and the edges (punched-out, undermined, rolled, or sloping). Base: Look at the base of the ulcer to see if it is clean, granulating, sloughy, or necrotic. Surrounding Skin: Examine the skin around the ulcer for redness, swelling, warmth, and any signs of infection or dermatitis. Discharge: Note the type (serous, purulent, bloody) and amount of any discharge. 3. Palpation: Tenderness: Check for tenderness around and on the ulcer. Induration: Assess for induration (hardness) around the ulcer, which can indicate chronic inflammation or malignancy. Temperature: Feel the temperature of the surrounding skin to detect any increased warmth. 4. Special Tests: Swab for Culture: If there is discharge, take a swab for microbiological examination to identify infection. Biopsy: If the ulcer appears suspicious or fails to heal, perform a biopsy to rule out malignancy. Doppler Ultrasound: Assess blood flow if a vascular cause is suspected.
NLHP 20.2	Examination of the peripheral nerve lesions	**Preparation steps:** 1. Gather Equipment: Reflex hammer, tuning fork (128 Hz), cotton wool, safety pin, and a neurotip. 2. Patient Preparation: Ensure the patient is comfortable and explain the procedure to gain consent.

		3. Environment: A quiet room with good lighting and privacy. **Steps for Examination** 1. Inspection: ◦ Observe for muscle wasting, fasciculations, and abnormal movements of both side. ◦ Look for any scars or deformities. 2. Tone: ◦ Assess muscle tone by passively moving the patient's limbs. ◦ Check for hypertonia or hypotonia. 3. Power: ◦ Test muscle strength in various muscle groups. ◦ Use the Medical Research Council (MRC) scale (0-5) to grade power. 4. Reflexes: ◦ Test deep tendon reflexes (e.g., biceps, triceps, knee jerk). ◦ Note any hyperreflexia or hyporeflexia. 5. Sensation: ◦ Test light touch, pain, and temperature sensation using cotton wool and a neurotic. ◦ Assess vibration sense with a tuning fork, starting distally and moving proximally if needed. 6. Coordination: ◦ Perform tests like finger-to-nose and heel-to-shin to assess coordination. ◦ Check for dysdiadochokinesis (inability to perform rapid alternating movements
NLHP 20.3	Demonstration of wound dressings	**Steps:** 1. Preparation: • Gather essential materials: Sterile gloves, Vrana Shodhana/ Ropan medicines, instruments, saline solution, gauze, adhesive tape, antibiotic ointment, and non-stick dressing.

		• Wash hands thoroughly. 2. Initial Inspection: • Assess the wound for size, shape, discharge, site, depth, and signs of infection. 3. Cleaning/debridement/: • Rinse the wound with saline solution/ kwatha. • Pat dry with sterile gauze. 4. Application of Ointment/oil/ lepa: • Apply a thin layer of antibiotic / Ointment/oil / lepa on the wound. 5. Dressing the Wound: • Place a non-stick dressing over the wound. • Secure it with gauze and adhesive tape. 6. Final Inspection: • Ensure the dressing is secure but not too tight/loose. • Check for any immediate allergic reactions or discomfort.

Topic 21 Kshudra Roga (LH :2 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO4, CO5	Define Kshudrarogas:Clinical features and management of first 20 disorders i.e Ajagalika to Sharkararbhuda	CK	MK	K	L,L&GD,D,L&PPT ,PT	P-VIVA,PP-Practical,PRN,VV-Viva,P-EXAM	F&S	II	-	LH
CO1, CO4, CO5	Define Kshudrarogas: Clinical features and management of last 23 disorders i.e Pama to Gudhabramsha	CK	MK	K	L,PL,L&GD,PER,L&PPT	T-OBT,VV-Viva,SA,T-CS,P-REC	F&S	II	-	LH
CO1, CO2, CO4	Demonstrate the proper techniques for a comprehensive hand examination, evaluating structure and function, and identifying any abnormalities.	PSY-GUD	MK	KH	SDL,D-BED,DIS,TUT, CBL	PA,P-VIVA,VV-Viva ,INT,PP-Practical	F&S	II	-	NLHP21.1

Non Lecture Hour Theory		
S.No	**Name of Activity**	**Description of Theory Activity**
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 21.1	Examination of the Hand	**Steps:** **Preparation:** Gather materials: Examination gloves, a penlight, measuring tape, and a reflex hammer. Ensure the patient's hand is clean and free from any hindrances. **Initial Observation:** Inspect the hand for swelling, redness, deformities, or any skin abnormalities. Note the condition of the nails and the presence of any scars or atrophy. **Palpation:** Gently palpate the bones, joints, and soft tissues. Check for tenderness, swelling, and temperature differences. **Range of Motion:** Ask the patient to perform active movements such as flexion, extension, abduction, adduction, and opposition. Assess the range and note any pain or limitation. **Strength Testing:** Evaluate the muscle strength by asking the patient to perform specific hand grips and movements against resistance. Compare strength in both hands. **Special Tests:** Perform tests like Tinel's sign, Phalen's test, and Finkelstein’s test to check for carpal tunnel syndrome, De Quervain's tenosynovitis, etc. Note any positive signs and their implications. **Neurological Examination:** Check sensation across the dermatomes of the hand.

		Evaluate reflexes using the reflex hammer. **Final Assessment:** Summarize findings and document any abnormalities or concerns. Discuss further steps or refer to a specialist if necessary.

Topic 22 Manya Vikara (LH :3 NLHT: 3 NLHP: 6)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	Define Nidana, Samprapti, Lakshana and Chikitsa of Gandamala and Apachi -Lymphadenitis.	CK	DK	K	L&PPT ,L	P-VIVA,P-REC,T-CS, PRN,CL-PR	F&S	II	-	LH
CO1, CO2, CO4	Define Pashanagardhabha – Etiopathogenesis, Clinical Features, Investigations, Differential Diagnosis, Complications, and Management of Parotitis.	CK	MK	KH	L,L_VC ,L&PPT	CL-PR,P-VIVA,PRN, VV-Viva,T-CS	F&S	II	-	LH
CO1, CO2, CO4	Examine the anatomical structure, vascular and neural connections, physiological functions, and pathological conditions of the thyroid gland to understand its role in metabolism, growth, and endocrine regulation.	CAP	MK	K	L&PPT ,L,DIS, PL	P-VIVA,T-CS,P-EXAM,VV-Viva	F&S	II	V-RS,V-KS,V-RS	NLHT22.1
CO1, CO2, CO4	Define Etiopathogenesis, Clinical feature , Investigations, Diffrential Diagnosis , complications, and management of Galaganda (Goitre)	CC	MK	K	L&PPT ,L_VC, L&GD, L	T-CS,CL-PR,PRN, C-VC	F&S	II	-	LH
CO1, CO2, CO4	Analyze the pathophysiology, clinical presentation, complications, and management of toxic goiter and thyroiditis, integrating diagnostic approaches and treatment modalities for effective clinical decision-making.	CAP	MK	K	SIM,DIS,CBL, L_VC,SDL	P-VIVA,CL-PR,PRN, VV-Viva,P-CASE	F&S	II	-	NLHT22.2

CO1, CO2, CO4	Evaluate the etiology, risk factors, and pathophysiology of thyroid neoplasms, distinguishing between benign and malignant types, while integrating the Ayurvedic perspective on the pathogenesis of Galaganda.	CAN	MK	K	DIS,RP, L_VC,L RI,PER	C-VC,P-VI VA,CL-PR,PRN	F&S	II	-	NLHT22.3
CO1, CO2, CO4	Demonstrate accurately the thyroid gland for any abnormalities, i ncluding enlargement, nodules, or signs of thyroid dysfunction	CAP	MK	K	L&GD, D-M,D, PL,L_V C	Mini-CEX, P-EXAM,P -VIVA,P-CASE,PRN	F&S	II	-	NLHP22.1
CO1, CO2, CO4	Demonstrate accurately the neck for structural abnormalities, lymph node enlargement, thyroid or vascular anomalies, etc.	CAP	MK	K	L_VC,C BL,DIS, CD,PER	CHK,VV-V iva,P-EXA M,INT,P-VIVA	F&S	II	-	NLHP22.2
CO1, CO2, CO4	Demonstrate and learn to assess the lymphatic system for signs of lymphadenopathy or other associate pathological conditions	CAP	MK	K	PT,D,DI S,TUT, L&GD	P-VIVA,O SCE, C-VC ,Mini-CEX, P-EXAM	F&S	II	-	NLHP22.3

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 22.1	Thyroid gland - anatomy & physiology	**Anatomy Dissection**: Use a virtual dissection tool or models to explore the thyroid gland's anatomy. Have students label the anatomical parts and discuss the blood supply and innervation. **Clinical Case Studies**: Present case studies of patients with thyroid disorders. Students diagnose the condition, describe the physiological basis of the symptoms, and suggest treatments. **Interactive Quizzes and Flashcards**: Develop quizzes and flashcards for key terms and concepts related to thyroid anatomy and physiology.

		Use apps or platforms that allow students to test their knowledge in a fun and engaging way. **Group Discussions and Presentations**: Assign topics related to thyroid gland physiology (e.g., the impact of iodine deficiency on thyroid function) for group research and presentations. Encourage students to ask questions and debate different perspectives.
NLHT 22.2	Toxic goiter, Thyroiditis	**Pathophysiology Diagrams**: Students create detailed diagrams showing the development and pathophysiological mechanisms of toxic goiter and thyroiditis. Use these diagrams to present to the class and explain the processes involved. **Clinical Case Discussions**: Provide case studies of patients with toxic goiter and different types of thyroiditis. Students diagnose, explain the clinical symptoms, suggest diagnostic tests, and propose treatment plans. **Laboratory Tests Analysis**: Analyze lab results for thyroid function tests (e.g., TSH, T3, T4 levels) in patients with toxic goiter and thyroiditis. Interpret the results and discuss their implications. **Group Presentations**: Assign groups to research and present on specific types of thyroiditis, detailing their etiology, clinical features, and treatment. Encourage discussions and Q&A sessions to foster deeper understanding. **Patient Education Role-play**: Students role-play as healthcare providers explaining the condition, treatment options, and lifestyle modifications to a patient with toxic goiter or thyroiditis. Focus on effective communication skills and patient-centric care.
NLHT 22.3	Neoplasm of Galaganda (thyroid) -Nidana, Samprapti, Lakshana and Chikitsa	**Etiology Analysis**: Students create a chart or mind map outlining the different causes and risk factors for thyroid

		neoplasms. Group discussion on how these factors are viewed in both modern medicine and Ayurveda. **Clinical Case Presentations**: Provide case studies of patients with thyroid neoplasms. Students diagnose the condition, describe the clinical features, and suggest both modern and Ayurvedic treatment plans. **Treatment Debate**: Organize a debate on the pros and cons of conventional versus Ayurvedic treatment modalities for thyroid neoplasms. Encourage students to research and present evidence-based arguments.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 22.1	Examination of Galaganda (thyroid gland)	**Steps:** **Preparation:** Gather materials: Stethoscope, a glass of water, and gloves. Ensure the patient is comfortably seated with the neck exposed. **Inspection:** Observe the neck for any visible swelling, asymmetry, or scars. Ask the patient to swallow a sip of water while you watch for upward movement of the thyroid gland. **Palpation:** Stand behind the patient and place your fingers on either side of the trachea. Ask the patient to swallow again and feel for the thyroid gland's consistency and movement. Gently palpate for any nodules or tenderness. Assess each lobe individually and the isthmus for size and texture. **Auscultation:** Using the stethoscope, listen over the thyroid gland for any bruits, which could indicate increased vascularity.

		Special Tests: Perform Pemberton's sign by asking the patient to raise their arms above their head for a few minutes. Observe for facial congestion or cyanosis, indicating thoracic inlet obstruction. **Evaluation:** Note any findings such as goiter, nodules, or irregularities and any systemic findings. Document the size, texture, and presence of any abnormalities. **Discussion:** Explain the findings to the patient and discuss any necessary further tests or referrals.
NLHP 22.2	Examination of the Gala (Neck)	**Steps:** **Preparation:** Gather materials: Stethoscope, gloves, and a flashlight. Ensure the patient is comfortably seated with neck exposed. **Inspection:** Observe the neck for symmetry, swelling, scars, or visible pulsations. Note any abnormalities such as masses or skin changes. **Palpation:** Palpate the lymph nodes: Start with preauricular, posterior auricular, occipital, submental, submandibular, cervical, and supraclavicular nodes. Check for tenderness, size, consistency, and mobility. Palpate the thyroid gland by placing your fingers on either side of the trachea and asking the patient to swallow. Assess the carotid arteries for pulse and any abnormal thrills. **Auscultation:** Use a stethoscope to listen over the carotid arteries for bruits, indicating turbulent blood flow. Listen over the thyroid gland for any vascular sounds. **Range of Motion:** Ask the patient to perform neck movements: flexion, extension, lateral bending, and rotation. Note any pain, limitation, or discomfort.

		Neurological Examination: Check for muscle strength and tone in the neck muscles. Assess the cranial nerves by testing functions such as shrugging shoulders (CN XI - Accessory nerve). **Documentation:** Record all findings, noting any abnormalities or asymmetries. Discuss potential next steps or referrals if needed.
NLHP 22.3	Examination of a Lymphatic system	**Steps:** **Preparation:** Gather materials: Gloves, a stethoscope, and a measuring tape. Ensure the patient is comfortably seated or lying down. **Inspection:** Observe the skin for any swelling, redness, or visible lymph nodes. Note any asymmetry or obvious abnormalities. **Palpation:** Systematically palpate the lymph nodes: cervical, axillary, inguinal, supraclavicular, mammary, and popliteal. Check for size, shape, size, consistency, mobility, tenderness, and warmth. Document any enlarged lymph nodes. **Special Techniques:** For deep lymph nodes, such as the retroperitoneal, consider imaging studies like ultrasound or CT scan. Assess the spleen as it is part of the lymphatic system by palpating the left upper quadrant of the abdomen. **Auscultation:** Use a stethoscope to listen over the lymph nodes for any abnormal bruits, which could indicate vascular anomalies. **Assessment of Associated Structures:** Evaluate the tonsils, spleen, and thymus if accessible. Check for signs of systemic infection or lymphatic diseases.

		Documentation: Record all findings, including any abnormalities in size, shape, or tenderness of the lymph nodes. Plan further investigations if any pathological findings are noted.

Topic 23 Sira Vikara (Venous Disorders) (LH :3 NLHT: 1 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	Define Surgical anatomy and pathology of key surgical regions (e.g., abdomen, thorax, pelvis, limbs) and their role in the diagnosis and management of Venous diseases. Discuss the principles of biopsy, excision, and histopathological e valuation.	CK	MK	K	PL,L&GD,PER,L_VC	PA, C-VC, T-CS,SA,VV-Viva	F&S	II	V-RS,V-KS,V-RS	NLHT23.1
CO1, CO2, CO4	Define Etiopathogenesis, Clinical feature, Investigations, Differential Diagnosis, complications and management of Superficial and Deep venous Thrombosis	CK	MK	K	L&PPT,L	PA,P-VIVA,VV-Viva,PRN	F&S	II	-	LH
CO1, CO2, CO4	Define Etiopathogenesis, Clinical Features, Investigations, Differential Diagnosis, complications, and management of Varicose veins	CK	MK	K	PL,SDL,LRI,FC,L_VC	CL-PR,M-CHT,VV-Viva,P-VIVA,PRN	F&S	II	-	LH
CO1, CO2, CO4	Demonstrate varicose veins, evaluate their severity, and their implications for treatment and patient care.	PSY-GUD	MK	K	PL,TUT,DIS,PT,CD	Mini-CEX, CHK,P-MOD,P-VIVA, CL-PR	F&S	II	-	NLHP23.1
CO1, CO2, CO4	Describe Etiopathogenesis, Clinical features, Investigations, Differential Diagnosis, Complications (Varicose eczema, Lipodermosclerosis), and Management of Siraja Vrana (Venous Ulcers).	CK	MK	K	L_VC,L,L&PPT,PER	INT,T-CS, C-VC,C-INT,P-VIVA	F&S	II	-	LH

CO1, CO2, CO4	Differentiate between unilateral and bilateral lower limb edema, identifying underlying causes and appropriate management strategies.	CAN	MK	KH	PT,SDL,CD,CBL,L_VC	PRN, C-VC,CL-PR,P-VIVA,P-EXAM	F&S	II	-	NLHP23.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 23.1	Surgical Anatomy & Surgical Pathology	**Cadaveric Dissection**: Engage students in hands-on dissection to explore surgical anatomy. Highlight critical anatomical landmarks and discuss their relevance in surgical procedures. **Surgical Case Studies**: Present real-life surgical cases. Have students diagnose conditions based on anatomical and pathological findings and suggest surgical interventions. **Pathology Reports Analysis**: Review and analyze pathology reports from biopsy and surgical specimens. Discuss the implications of the findings and their impact on patient management. **Anatomy and Pathology Correlation**: Create charts or models showing the correlation between anatomical structures and pathological processes. Discuss how anatomical variations can influence disease presentation and surgical outcomes.

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 23.1	Examination of Varicose Vein	**Steps:** Preparation: Gather materials: Tape measure, stethoscope, gloves, and a Doppler ultrasound (if available). Ensure the patient is standing up during the inspection and palpation for a more accurate assessment.

		Inspection: Observe the legs for visible signs of varicose veins, noting the location, size, and pattern. Look for skin changes such as discoloration, ulcers, or dermatitis. Palpation: Gently palpate the varicose veins to assess for tenderness, temperature, and firmness. Check for any signs of thrombosis or skin changes around the veins. Special Tests: Trendelenburg Test: Elevate the patient's leg, apply a tourniquet to the thigh, and have the patient stand up. Observe for rapid filling of veins which indicates valvular incompetence. Doppler Ultrasound: If available, use to evaluate venous flow and valve function. Measure and Document: Measure the circumference of the affected areas at different levels of the leg to track swelling and varicosity changes. Document findings including the severity, pattern, and any associated symptoms. Patient Discussion: Explain the findings to the patient. Discuss lifestyle changes, compression stockings, and potential medical or surgical treatments if necessary.
NLHP 23.2	Examination and differential diagnosis of unilateral and bilateral lower limb edema	**Steps:** **Preparation:** Gather materials: Measuring tape, stethoscope, and gloves. Ensure the patient is comfortably seated or lying down with legs exposed. **Initial History:** Take a thorough history including onset, duration, and associated symptoms (pain, redness, warmth, shortness of breath). Ask about medical history (heart failure, liver disease, kidney disease, venous insufficiency, or recent trauma). **Inspection:** Observe both lower limbs for swelling, asymmetry, discoloration, skin changes (ulceration, redness,

cyanosis).
Note any visible varicose veins, surgical scars, or signs of infection.
Palpation:
Gently palpate the swollen area to assess pitting (press the skin for a few seconds and observe the indentation).
Compare temperature between limbs to identify increased warmth (suggesting infection or inflammation).
Assess for tenderness, firmness, and extent of edema.
Measurement:
Measure the circumference of both lower limbs at fixed points (ankles, calves, and thighs).
Compare measurements to identify asymmetry and severity of swelling.
Auscultation:
Listen over the femoral and popliteal arteries for bruits, indicating vascular abnormalities.
Special Tests:
Homan's Sign: Dorsiflex the foot to check for calf pain (suggesting deep vein thrombosis).
Venous Doppler Ultrasound: If available, use to assess venous flow and identify obstruction or reflux.
Differential Diagnosis:
Unilateral Edema:
Deep vein thrombosis
Cellulitis or infection
Trauma or injury
Venous insufficiency
Tumor or obstruction
Bilateral Edema:
Heart failure
Chronic kidney disease
Liver cirrhosis
Chronic venous insufficiency
Hypoalbuminemia

Topic 24 Dhamani Vikara (Arterial disorders) (LH :3 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	Define Etiopathogenesis, Clinical Features, Investigations, Differential diagnosis, complications, and management of Aneurysm.	CK	MK	K	L_VC,L&GD,L&PPT,L	CL-PR,P-VIVA,PRN,T-CS,VV-Viva	F&S	II	-	LH
CO1, CO2, CO4	Define Etiopathogenesis, CF, Investigations, DD, Complications and management of Burger's disease	CK	MK	K	L&GD, L,L&PPT,DIS,CD	P-VIVA,CL-PR,PA,M-POS,VV-Viva	F&S	II	-	LH
CO1, CO2, CO4	Define Etiopathogenesis, CF, Investigations, DD, Complications and management of Raynaud's disease	CK	MK	K	L,L_VC,L&PPT,L&GD	VV-Viva,CL-PR,P-VIVA,T-CS,COM	F&S	II	-	LH
CO1, CO2, CO4	Demonstrate accurate assessment for peripheral vascular diseases, including arterial and venous disorders, and differentiate between them for appropriate diagnosis and management.	PSY-GUD	MK	K	SIM,D-M,D,CD,DIS	P-VIVA,INT,P-EXAM, C-VC,C-INT	F&S	II	-	NLHP24.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity

NLHP 24.1	Examination of the Dhamani Vikara (peripheral vascular diseases)	**Steps:** **Preparation:** Gather materials: Stethoscope, Doppler ultrasound (if available), measuring tape, and gloves. Ensure the patient is comfortably seated or lying down with the legs exposed. **Initial History:** Take a thorough history including symptoms (pain, cramping, discoloration), duration, and any aggravating or relieving factors. Ask about medical history (diabetes, hypertension, smoking, hyperlipidemia). **Inspection:** Observe the skin for color changes, ulcers, hair loss, and atrophy. Note any visible varicose veins, edema, or signs of infection. **Palpation:** Palpate pulses (radial, femoral, popliteal, posterior tibial, and dorsalis pedis) and compare bilaterally. Assess the temperature of the skin, checking for cold extremities which may indicate arterial insufficiency. Palpate for tenderness, particularly in the calf muscles. **Measurement:** Measure limb circumference at fixed points (ankles, calves, and thighs) to assess for swelling or asymmetry. **Special Tests:** **Ankle-Brachial Index (ABI):** Compare blood pressure in the ankle with the arm using a Doppler to detect peripheral artery disease. **Buerger's Test:** Elevate the legs and observe for pallor. Lower the legs and check for reactive hyperemia. **Venous Doppler Ultrasound:** If available, use to assess for venous reflux or deep vein thrombosis. **Capillary Refill Time:** Press on the nail bed and observe the time taken for color to return; prolonged refill time may indicate poor perfusion. **Auscultation:** Listen for bruits over major arteries which may indicate stenosis. **Documentation and Differential Diagnosis:**

		Record all findings, noting any abnormalities in pulses, color, temperature, or swelling. Consider differential diagnoses such as peripheral artery disease, chronic venous insufficiency, lymphedema, or deep vein thrombosis.

Topic 25 Snayu Vikara (Diseases of tendons and ligaments) (LH :2 NLHT: 0 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	Define Diseases of tendons and ligaments – Tendonitis, tenosynovitis, ganglion and their management Dupuytren's contracture	CK	MK	K	L&PPT ,L&GD, PL,L,B L	PP-Practica l,P-EXAM, T-CS,PRN, CL-PR	F&S	II	-	LH
CO1, CO2, CO4	Define Amputation, Classifications, Indication & Contraindications	CK	MK	K	L&GD, L_VC,L &PPT ,L	T-CS,PA,P RN,SA,VV-Viva	F&S	II	-	LH
CO1, CO2, CO3, CO4, CO5	Demonstration of peripheral vascular diseases, perform amputatio ns when necessary, and manage potential complications.	PSY-MEC	MK	K	CBL,T UT,DIS, RLE,PS M	SBA,VV-V iva,DEB,P RN,P-EXAM	F&S	II	-	NLHP25.1
CO1, CO2, CO4	Demonstrate the diagnosis of diseases affecting the muscles, liga ments, tendons, and fascia, understanding their function, and identifying any pathological conditions.	PSY-MEC	DK	K	PER,DI S,D,CD, D-BED	VV-Viva,M -MOD,CL-PR,Log book,OSCE	F&S	II	-	NLHP25.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 25.1	Techniques of Amputation & Complications with examples of individual amputation	**Steps:** Preparation: Gather materials: Stethoscope, Doppler ultrasound, measuring tape, gloves, and surgical instruments. Ensure the patient is comfortably positioned with the affected limb exposed. Initial History: Take a thorough history including symptoms (pain, cramping, discoloration), duration, and any aggravating or relieving factors. Ask about medical history (diabetes, hypertension, smoking, hyperlipidemia). Inspection: Observe the skin for color changes, ulcers, hair loss, and atrophy. Note any visible varicose veins, edema, or signs of infection. Palpation: Palpate pulses (radial, femoral, popliteal, posterior tibial, and dorsalis pedis) and compare bilaterally. Assess the temperature of the skin, checking for cold extremities which may indicate arterial insufficiency. Palpate for tenderness, particularly in the calf muscles. Measurement: Measure limb circumference at fixed points (ankles, calves, and thighs) to assess for swelling or asymmetry. Special Tests: Ankle-Brachial Index (ABI): Compare blood pressure in the ankle with the arm using a Doppler to detect peripheral artery disease. Buerger’s Test: Elevate the legs and observe for pallor. Lower the legs and check for reactive hyperemia. Venous Doppler Ultrasound: If available, use it to assess for venous reflux or deep vein thrombosis. Capillary Refill Time: Press on the nail bed and observe the time taken for color to return; prolonged refill time may indicate poor perfusion. Auscultation:

		Listen for bruits over major arteries which may indicate stenosis. Amputation Techniques: Preoperative Planning: Assess the viability of the limb, plan the level of amputation, and prepare the patient. Surgical Procedure: Perform the amputation with an aseptic technique, ensuring proper hemostasis and shaping the stump for prosthetic fitting. Postoperative Care: Monitor for complications, manage pain, and initiate rehabilitation. Complications: Infection: Monitor for signs of infection and treat promptly with antibiotics. Phantom Limb Sensation: Educate the patient about phantom limb sensations and provide appropriate interventions. Residual Limb Pain: Manage pain with medications and physical therapy. Joint Contractures: Prevent contractures with proper positioning and physical therapy. Deep Vein Thrombosis (DVT): Use anticoagulants and compression therapy to prevent DVT.
NLHP 25.2	Examinations of Diseases of Snayu Vikara (Muscle, Ligaments, Tendon and Fascia)	**Steps:** Preparation: Gather materials: Stethoscope, measuring tape, goniometer, gloves, and reflex hammer. Ensure the patient is comfortably seated or lying down, with the affected area exposed. Initial History: Take a thorough history, including symptoms (pain, stiffness, weakness, swelling), onset, and any aggravating or relieving factors. Ask about medical history (trauma, overuse injuries, occupational stress, systemic diseases like rheumatoid arthritis or lupus). Inspection: Observe the affected area for swelling, redness, bruising, atrophy, or deformity. Note any changes in posture or gait. Palpation: Gently palpate the muscles, ligaments, tendons, and fascia for tenderness, swelling, warmth, and abnormalities.

		Assess muscle tone, bulk, and tenderness. Check for crepitus (a crackling sound) in the tendons during movement. Range of Motion: Ask the patient to perform active and passive movements to assess the range of motion. Use a goniometer to measure joint angles accurately. Note any limitations, pain, or discomfort during movement. Strength Testing: Evaluate muscle strength using a grading system (0-5) by asking the patient to resist your movements. Compare strength in both limbs to identify asymmetry. Special Tests: Muscle: Perform tests like manual muscle testing (MMT) and electromyography (EMG) if available. Ligament: Conduct stress tests (e.g., Lachman test for ACL integrity) to assess ligament stability. Tendon: Use the Thompson test for Achilles tendon rupture and other specific tests for different tendons. Fascia: Check for signs of plantar fasciitis by palpating the sole and assessing for pain. Neurological Examination: Assess reflexes using a reflex hammer. Check for sensation and motor function in the affected area. Imaging and Further Tests: Recommend imaging studies like X-rays, MRI, or ultrasound to confirm the diagnosis and assess the extent of injury. Documentation: Record all findings, noting any abnormalities in muscle strength, degree of motion, and special tests. Discuss potential diagnoses and further investigations if needed.

Topic 26 AIDS - HIV and Hepatitis (B and C) (LH :1 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1,	Describe Care of AIDS - HIV and hepatitis infected (Hepatitis B	CC	MK	K	CD,L_V	C-VC,T-C	F&S	II	V-RN	LH

CO2, CO3, CO4	and C) patients.				C,SDL, L&PPT ,L	S,PA,VV-Viva,SA				
CO1, CO3, CO4	Demonstrate to ensure the safety of healthcare workers and patients by implementing appropriate infection control measures when dealing with HIV and Hepatitis B and C infected patients.	PSY-GUD	MK	KH	L_VC,DIS,SDL, PER,PT	PRN,SA,PA,P-VIVA, VV-Viva	F&S	II	-	NLHP26.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 26.1	Safety Precautions in the patient of HIV and hepatitis infected Hepatitis B and C Patients	**Steps:** Preparation: Gather materials: Personal protective equipment (PPE) including gloves, masks, gowns, and eye protection. Ensure availability of hand hygiene supplies (hand sanitizer, soap, and water). Hand Hygiene: Perform hand hygiene before and after patient contact. Use alcohol-based hand rub or wash hands with soap and water for at least 20 seconds. Use of Personal Protective Equipment (PPE): Wear gloves when coming into contact with blood, body fluids, secretions, or contaminated items. Use masks, gowns, and eye protection if there is a risk of splashes or sprays of blood or body fluids. Safe Injection Practices: Use sterile, single-use needles and syringes for injections. Dispose of needles and syringes in puncture-resistant sharps containers immediately after use. Environmental Cleaning: Clean and disinfect surfaces and equipment that may have come into contact with blood or body fluids. Use appropriate disinfectants and follow the manufacturer's instructions for use.

		Patient Placement: Place patients with known or suspected infectious diseases in private rooms or cohorts with patients with the same infection. Limit patient movement within the facility to reduce the risk of transmission. Respiratory Hygiene and Cough Etiquette: Encourage patients to cover their mouth and nose with a tissue when coughing or sneezing. Provide tissues and no-touch receptacles for disposal. Safe Handling of Linen and Waste: Handle soiled linen with minimal agitation to avoid contamination of air, surfaces, and persons. Dispose of medical waste, including contaminated linen, in designated containers. Education and Training: Educate healthcare workers on infection control practices and the importance of adhering to safety precautions. Provide training on the proper use of PPE and safe handling of potentially infectious materials. Reporting and Follow-Up: Report any exposure incidents (needlestick injuries, splashes) immediately to the designated person or health care professional. Follow up with appropriate post-exposure prophylaxis and medical evaluation.

Paper 2 (Shalya Tantra Chikitsa Siddhanta)										
A3 Course out come	**B3 Learning Objective (At the end of the session, the students should be able to)**	**C3 Domain/sub**	**D3 MK / DK / NK**	**E3 Level**	**F3 T-L method**	**G3 Assessment**	**H3 Assessment Type**	**I3 Term**	**K3 Integration**	**L3 Type**
Topic 27 Bhagna (Skeletal Injuries) (LH :3 NLHT: 5 NLHP: 8)										
A3	**B3**	**C3**	**D3**	**E3**	**F3**	**G3**	**H3**	**I3**	**K3**	**L3**

CO1, CO2, CO4	Describe Prakara of Bhagna including pathological fracture, Samanya Lakshana, Upadrava, and Chikitsa of Bhagna	CC	MK	K	X-Ray, L&GD, L&PPT ,L,CD	VV-Viva,CL-PR,PP-Practical,COM,PRN	F&S	II	-	LH
CO1, CO2, CO4	Analyze the anatomical structure, biomechanical mechanisms, clinical presentation, diagnosis, and management of scapular and clavicular fractures.	CC	MK	K	X-Ray,SDL,DIS, D-M,L_VC	VV-Viva,SA,P-CASE,Logbook,PP-Practical	F&S	II	-	NLHT27.1
CO1, CO2, CO4	Define Clinical features, Diagnosis, Complications, and Management - humerus, radius, ulna,	CK	MK	K	L,L_VC ,D,TUT, X-Ray	VV-Viva,PRN,P-EXAM,PP-Practical,P-VIVA	F&S	II	-	LH
CO1, CO2, CO4	Analyze the anatomical structure, fracture mechanisms, clinical presentation, diagnosis, management, and rehabilitation strategies for femur and patella fractures.	CC	MK	K	L&GD, PBL,SIM,PER, PL	P-VIVA,Logbook,SA,PRN,PA	F&S	II	-	NLHT27.2
CO1, CO2, CO4	Examine the anatomical features, assess fracture mechanisms, interpret clinical presentations, formulate diagnostic approaches, implement management strategies, and integrate rehabilitation and physiotherapy principles for tibia and pelvis fractures.	CK	MK	K	X-Ray, CBL,DIS,RP,PER	P-VIVA,COM,P-EXAM,SA,PRN	F&S	II	-	NLHT27.3
CO1, CO2, CO4	Describe the signs and symptoms of joint dislocations. Identify common joints prone to dislocation (e.g., shoulder, knee, hip) and discuss their signs and symptoms, types, diagnostic techniques, management, and complications.	CC	MK	K	X-Ray, D,SY,PER,L_VC	VV-Viva,PA,DEB,PP-Practical, C-VC	F&S	II	-	NLHT27.4
CO1,	Analyze the anatomical structures, investigate the mechanisms,	CAN	MK	K	PER,L_	VV-Viva,P	F&S	II	-	NLHT27.5

CO2, CO4	classify the types, interpret the clinical signs, apply diagnostic techniques, devise management strategies, evaluate complications, and integrate rehabilitation and physiotherapy for shoulder and elbow dislocations.				VC,TUT,PL,SDL	P-Practical, INT,P-EXAM,PRN				
CO1, CO2, CO4	Explain how to assess accurately and diagnose bone and joint injuries, ensuring appropriate diagnosis and treatment.	PSY-GUD	MK	K	DIS,TUT	PRN,P-EXAM,P-ID	F	II	-	NLHP27.1
CO1, CO2, CO4	Explain how to assess accurately and diagnose injuries of the Wrist, Elbow, Shoulder, Ankle, Knee, and Hip joints, ensuring appropriate diagnosis and treatment.	CAN	MK	KH	PER,DIS,CD,SIM,D-BED	PRN,P-VIVA,CL-PR, Mini-CEX,CHK	F&S	II	-	NLHP27.2
CO1, CO2, CO4	Demonstrate and provide hands-on training on the application of skin and skeletal traction, ensuring proper technique and safety measures.	PSY-GUD	MK	KH	D-BED, PER,BL,RP,D	DEB,CL-PR,VV-Viva, P-VIVA,PRN	F&S	II	-	NLHP27.3
CO1, CO2, CO4	Demonstrate and provide immediate and appropriate first aid care to patients with fractures, minimizing complications and ensuring proper stabilization until further treatment can be obtained.	PSY-GUD	MK	K	CBL,SDL,DIS,PER,SIM	P-EXAM,P-VIVA, C-VC,INT,PRN	F&S	II	-	NLHP27.4

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 27.1	Fracture of scapula & clavicle	**Anatomy Lab**: Hands-on sessions with anatomical models to study the scapula and clavicle. Identify and label anatomical landmarks important for understanding fractures. Mechanism of Injury Workshop: Use case studies to explore different injury mechanisms. Students discuss and simulate scenarios that could lead to fractures. Clinical Examination Practice: Role-play patient scenarios to practice identifying signs and symptoms of fractures. Discuss differential diagnoses based on clinical presentations.

		Radiology Session: Review and interpret X-rays and CT scans of scapula and clavicle fractures. Discuss how to identify different types of fractures and their implications. Treatment Planning: Develop treatment plans for various fracture scenarios. Discuss the pros and cons of conservative vs. surgical management. Rehabilitation Planning: Create rehabilitation plans for patients post-fracture. Discuss the timeline and goals of physiotherapy sessions.
NLHT 27.2	Clinical features, Diagnosis, Complications, and Management of Femur & Patella	**Anatomy Lab**: Hands-on sessions with anatomical models or cadaveric specimens to study the femur and patella. Identify and label anatomical landmarks important for understanding fractures. **Mechanism of Injury Workshop**:Use case studies to explore different injury mechanisms. Students discuss and simulate scenarios leading to fractures. **Clinical Examination Practice**:Role-play patient scenarios to practice identifying signs and symptoms of fractures. Discuss differential diagnoses based on clinical presentations. **Radiology Session**:Review and interpret X-rays, MRIs, and CT scans of femur and patella fractures. Discuss how to identify different types of fractures and their implications. **Treatment Planning**:Develop treatment plans for various fracture scenarios. Discuss the pros and cons of conservative vs. surgical management. **Rehabilitation Planning**:Create rehabilitation plans for patients post-fracture. Discuss the timeline and goals of physiotherapy sessions.
NLHT 27.3	Clinical features, Diagnosis, Complications, and Management of Tibia and Pelvic bones	**Clinical Examination Workshops**: Practice physical examination techniques to identify signs and symptoms of tibia and pelvis conditions. Use mannequins or simulated patients for hands-on learning.

		Radiology Sessions: Review and interpret radiographic images of tibia and pelvis fractures and pathologies. Discuss case studies to apply diagnostic criteria. **Case Studies and Group Discussions**: Present real-life case studies with detailed histories and diagnostic data. Group discussions to develop diagnosis, treatment plans, and management strategies. **Complication Analysis**: Analyze potential complications from case studies. Discuss management strategies for preventing and addressing these complications. **Treatment Planning**: Develop detailed treatment plans for various scenarios involving tibia and pelvis fractures or diseases. Debate the pros and cons of conservative vs. surgical management options. **Rehabilitation Workshops**: Create and discuss rehabilitation protocols for post-fracture care. Hands-on sessions on physiotherapy techniques and their importance in recovery.
NLHT 27.4	Dislocation of joints	**Anatomy and Physiology Review**: Conduct hands-on sessions with anatomical models to study the joints and understand their structures. Highlight key anatomical features relevant to dislocation. **Clinical Examination Practice**: Role-play patient scenarios to identify clinical signs and symptoms of various joint dislocations. Discuss the differential diagnosis based on clinical presentation. **Radiology Interpretation**: Review X-rays and MRIs of joint dislocations. Practice interpreting these images to diagnose different types of dislocations. **Case Study Analysis**: Present real-life case studies of joint dislocations. Students analyze the cases to identify clinical features, diagnostic methods, and possible complications.

NLHT 27.5	Management of Shoulder & Elbow Dislocation	**Anatomy Review Sessions**: Use anatomical models or cadaveric specimens to study the shoulder and elbow joints. Identify key anatomical landmarks relevant to dislocation and reduction. **Clinical Examination Practice**: Role-play scenarios to practice recognizing signs and symptoms of shoulder and elbow dislocations. Discuss differential diagnoses and perform physical examinations. **Radiology Workshops**: Review and interpret X-rays and MRIs of shoulder and elbow dislocations. Practice identifying different types of dislocations and associated injuries. **Reduction Technique Demonstrations**: Demonstrate various reduction techniques on mannequins or models. Students practice these techniques under supervision to ensure proper understanding and execution. **Case Study Discussions**: Analyze case studies of patients with shoulder and elbow dislocations. Develop comprehensive management plans, including reduction, post-reduction care, and rehabilitation.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 27.1	Examination of the Bone and Joint injuries	**Steps:** **Preparation:** Gather materials: Gloves, stethoscope, measuring tape, goniometer, and reflex hammer. Ensure the patient is comfortably seated or lying down, with the affected area exposed. **Initial History:** Take a thorough history, including the mechanism of injury, symptoms (pain, swelling, deformity), and any previous injuries or conditions. Ask about medical history, including bone or joint disorders (e.g., osteoporosis, arthritis). **Inspection:**

		Observe the affected area for swelling, bruising, deformity, or any visible wounds. Note any asymmetry compared to the unaffected side. **Palpation:** Gently palpate the bone and joint for tenderness, swelling, and temperature. Assess for crepitus (grating sensation) which may indicate a fracture. Check for joint effusion (fluid buildup). **Range of Motion:** Ask the patient to perform active and passive movements to assess the range of motion. Use a goniometer to measure joint angles accurately. Note any limitations, pain, or instability during movement. **Strength Testing:** Evaluate muscle strength around the affected joint using a grading system (0-5). Compare strength in both limbs to identify asymmetry. **Special Tests:** Perform specific tests for different joints: e.g., Lachman test for ACL injuries in the knee, Hawkins-Kennedy test for shoulder impingement. Assess for ligamentous stability, meniscal injuries, and other soft tissue damage. **Neurological Examination:** Assess sensory and motor function to rule out nerve involvement. Check reflexes using a reflex hammer. **Imaging and Further Tests:** Recommend imaging studies such as X-rays, MRI, or CT scans to confirm diagnosis and assess the extent of the injury. Consider blood tests if infection or inflammatory conditions are suspected. **Documentation:** Record all findings, noting any abnormalities in bone alignment, joint stability, and range of motion. Discuss potential diagnoses and further investigations if needed.
NLHP 27.2	Examination of Injuries about Individual Joints	**wrist Joint**

Steps:

1. **Preparation:**
    - Gather materials: Gloves, measuring tape, goniometer, and reflex hammer.
    - Ensure the patient is comfortably seated with the wrist exposed.
2. **Inspection:**
    - Observe for swelling, bruising, deformity.
    - Note any asymmetry or skin changes.
3. **Palpation:**
    - Palpate the wrist for tenderness, swelling, and crepitus.
    - Check for temperature differences.
4. **Range of Motion:**
    - Assess active and passive range of motion (flexion, extension, radial/ulnar deviation).
5. **Special Tests:**
    - Finkelstein's test for De Quervain's tenosynovitis.
    - Tinel's sign and Phalen's test for carpal tunnel syndrome.

Elbow Examination

Steps:

1. **Preparation:**
    - The patient is seated with the elbow exposed.
2. **Inspection:**
    - Check for swelling, deformity, and scars.
    - Note asymmetry.
3. **Palpation:**
    - Palpate for tenderness, and swelling around the joint.
    - Check for temperature differences.
4. **Range of Motion:**

- Assess flexion, extension, supination, pronation.

5. **Special Tests:**
    - Varus and valgus stress tests for ligament integrity.
    - Tinel's sign for ulnar nerve compression.

Shoulder Examination
Steps:

1. **Preparation:**
    - The patient is seated with their shoulder exposed.
2. **Inspection:**
    - Observe for atrophy, asymmetry, and deformity.
3. **Palpation:**
    - Palpate for tenderness in the Shoulder girdle and acromioclavicular joint.
    - Check for warmth and swelling.
4. **Range of Motion:**
    - Assess active/passive movements: flexion, extension, abduction, adduction, internal/external rotation.
5. **Special Tests:**
    - Hawkins-Kennedy test for impingement.
    - Apprehension test for instability.
    - Drop arm test for rotator cuff tear.

Knee Examination
Steps:

1. **Preparation:**
    - Patient seated or lying with knee exposed.
2. **Inspection:**

- Check for swelling, deformity, and scars.
- Note asymmetry.

3. **Palpation:**
    - Palpate for tenderness, warmth, and swelling.
4. **Range of Motion:**
    - Assess flexion and extension.
5. **Special Tests:**
    - Lachman test for ACL integrity.
    - McMurray test for meniscal injury.
    - Varus and valgus stress tests for ligament stability.

Hip Examination

Steps:

1. **Preparation:**
    - The patient is lying down with the hip exposed.
2. **Inspection:**
    - Observe for asymmetry, atrophy, and deformity.
3. **Palpation:**
    - Palpate for tenderness in the hip joint, greater trochanter.
    - Check for warmth and swelling.
4. **Range of Motion:**
    - Assess flexion, extension, abduction, adduction, internal/external rotation.
5. **Special Tests:**
    - Trendelenburg test for gluteal muscle strength.
    - FABER test for hip joint pathology.

Ankle Examination

Steps:

		1. **Preparation:** • Patient seated or lying with ankle exposed. 2. **Inspection:** • Check for swelling, bruising, and deformity. • Note asymmetry. 3. **Palpation:** • Palpate for tenderness, warmth, and swelling. 4. **Range of Motion:** • Assess dorsiflexion, plantarflexion, inversion, eversion. 5. **Special Tests:** • Anterior drawer test for ankle stability. • Thompson test for Achilles tendon rupture.
NLHP 27.3	Hands on training on traction (skin and skeletal)	**Steps:** 1. **Preparation:** • Gather materials: Traction equipment (skin traction setup, skeletal traction setup), gloves, gauze, bandages, weights, and a traction table. • Ensure the patient is comfortably positioned on the traction table. 2. **Skin Traction:** • **Preparation:** ◦ Explain the procedure to the patient and obtain informed consent. ◦ Gather all necessary materials and ensure they are sterile. • **Application:** ◦ Clean and dry the skin area where traction will be applied. ◦ Apply adhesive tape to the skin to create a secure base. ◦ Attach the traction bandage to the adhesive tape and connect it to the traction setup. ◦ Gradually apply weights to achieve the desired traction force. ◦ Monitor the patient for any signs of discomfort or complications. 3. **Skeletal Traction:**

		• **Preparation:**
		  ◦ Explain the procedure to the patient and obtain informed consent.
		  ◦ Gather all necessary materials and ensure they are sterile.
		• **Application:**
		  ◦ Position the patient on the traction table and align the affected limb.
		  ◦ Insert a pin or wire into the bone under sterile conditions.
		  ◦ Attach the traction setup to the pin or wire and gradually apply weights to achieve the desired traction force.
		  ◦ Monitor the patient for any signs of discomfort or complications.
		4. **Monitoring and Care:**
		• Regularly check the traction setup to ensure it is functioning correctly.
		• Monitor the patient for signs of infection, pressure sores, or nerve damage.
		• Adjust weights and traction as needed based on the patient's condition and progress.
		5. **Documentation:**
		• Record all steps taken during the application of traction, including weights used, patient positioning, and any complications encountered.
		• Document the patient's response to traction and any changes in their condition.

NLHP 27.4	First aid management of fracture cases	**Steps:** 1. **Preparation:** • Gather materials: First aid kit, sterile gauze, bandages, splints (or improvised splints like cardboard), cold packs, gloves. • Ensure the patient is in a safe and stable environment. 2. **Initial Assessment:** • Perform a primary survey (ABCs: Airway, Breathing, Circulation) to ensure no life-threatening conditions. • Assess the patient for signs of shock (pale skin, rapid pulse, shallow breathing). 3. **Immobilization:** • **Identify the fracture:** Look for swelling, deformity, bruising, laceration etc or abnormal movement.

- **Support the injured area:** If possible, support the fracture with your hands to prevent further movement.
- **Apply a splint:** Use a splint to immobilize the joints above and below the fracture site.
    - For an upper limb fracture, support the arm in a sling.
    - For a lower limb fracture, splint the leg in a straight position using rigid materials.
- **Secure the splint:** Use bandages or cloth strips to secure the splint without cutting off circulation.

4. **Pain Management:**
    - Apply a cold pack to the affected area to reduce swelling and pain. Do not apply ice directly to the skin; use a cloth or towel as a barrier.
5. **Wound Care (if open fracture):**
    - Cover any open wounds with sterile gauze to prevent infection.
    - Avoid trying to push any protruding bones back into place.
6. **Monitor and Reassure:**
    - Continuously monitor the patient's vital signs and condition.
    - Keep the patient calm and reassured.
7. **Transport to Medical Facility:**
    - Arrange for transport to a medical facility as quickly and safely as possible.
    - Avoid unnecessary movement of the injured limb during transport.

Topic 28 Asthi Sandhi Vikara (Diseases of Bone and Joints) (LH :2 NLHT: 2 NLHP: 6)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO5	Describe Aetiopathogenesis, Classification, Clinical features, Diagnosis, and Complications of Osteomyelitis	CAP	MK	K	L&PPT ,L	OSPE,P-CASE,PRN, OSCE,P-EXAM	F&S	II	H-KC,V-RN	LH
CO1, CO2, CO4	Explain Aetiopathogenesis, Classification, Clinical features, Diagnosis, Treatment and Complications of Cysts, Tumours	CC	DK	K	L_VC,L &GD,P T,TUT,	P-VIVA,P-EXAM,OSPE,CL-PR,	F&S	II	-	NLHT28.1

					CD	C-VC				
CO1, CO2, CO4	Explain Aetiopathogenesis, Classification, Clinical features, Diagnosis, Treatment, and Complications of Tuberculosis of bone.	CC	MK	K	L&PPT ,L	CL-PR,P-VIVA,QZ ,INT,PRN	F&S	II	-	LH
CO1, CO2, CO5	Explain Aetiopathogenesis, Classification, Clinical features, Diagnosis, Treatment, and Complications of Osteoporosis, Paget’s disease	CC	MK	K	FC,PBL ,SDL,C BL,D-BED	P-VIVA,P-PS,RK,VV-Viva,P-EXAM	F&S	II	-	NLHT28.2
CO1, CO2, CO4	Explain how to assess accurately and diagnose diseases affecting t he bones, ensuring proper diagnosis and management.	CC	MK	K	PBL,RP ,X-Ray, TUT,DI S	P-RP,QZ ,PRN, C-V C,P-EXAM	F&S	II	-	NLHP28.1
CO1, CO3, CO5	Explain how to assess accurately and diagnose joints for signs of pathology such as inflammation, degeneration, or structural abnormalities, enabling accurate diagnosis and effective treatment.	CC	MK	K	X-Ray, D-BED, CBL,PT ,DIS	OSPE,PRN, P-EXAM,P -VIVA,P-CASE	F&S	II	-	NLHP28.2
CO1, CO3, CO5	Explain how to assess accurately and diagnose the foot for any ab normalities, injuries, or conditions affecting the bones, joints, mus cles, tendons, and skin	CC	MK	K	D-M,PL ,DIS,X-Ray,PE R	VV-Viva,OSPE, C-VC,P-EX AM,PP-Practical	F&S	II	-	NLHP28.3

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 28.1	Diagnosis, Treatment & Complications of Cysts, Tumours of bones	1. **Case Study Analysis:** ◦ Provide detailed case studies of patients with bone cysts and tumors.

- Students identify and explain the aetiopathogenesis, classification, clinical features, diagnosis, and potential complications.
- Encourage group discussion and collaborative learning to explore different aspects of each case.

2. **Anatomical Models and Specimens:**
   - Use anatomical models and specimens to show the locations and structures of common bone cysts and tumors.
   - Allow students to examine these models to better understand the anatomical context.
3. **Interactive Presentations:**
   - Assign each student or group a specific type of bone cyst or tumor.
   - Have them create and present comprehensive reports covering all aspects, including visual aids like diagrams and slides.
4. **Diagnostic Imaging Workshops:**
   - Conduct workshops on the interpretation of diagnostic imaging (X-ray, CT scan, MRI, bone scans).
   - Provide sample images of bone cysts and tumors for analysis.
   - Discuss the role of imaging in diagnosing and differentiating between different types of lesions.
5. **Role-Playing and Simulation:**

- Use patient simulators or role-playing exercises to practice clinical examination techniques.
- Simulate scenarios where students must diagnose and suggest treatment plans for patients presenting with bone cysts or tumors.
- Provide feedback and discuss the decision-making process.

6. **Group Discussions and Debates:**
   - Organize group discussions or debates on topics related to bone cysts and tumors, such as treatment options and prognosis.
   - Encourage critical thinking and evidence-based argumentation.

7. **Problem-Based Learning (PBL):**
   - Implement PBL sessions where students are given clinical problems related to bone cysts or tumors.
   - Have them research and present their findings and proposed solutions.
   - Facilitate discussions to reinforce learning points.

8. **Guest Lectures and Expert Talks:**
   - Invite orthopedic oncologists and radiologists to give lectures on their experiences with bone cysts and tumors.
   - Allow students to ask questions and interact with the experts.

NLHT 28.2	Osteoporosis and Paget's disease	1. **Case Study Analysis:** ◦ Provide detailed case studies of patients with Osteoporosis and Paget’s disease. ◦ Students analyze and identify the clinical features, diagnosis, and potential complications. ◦ Facilitate group discussions to explore different aspects of each case. 2. **Interactive Presentations:** ◦ Assign each student or group a specific topic related to Osteoporosis or Paget’s disease. ◦ Have them create and present comprehensive reports covering clinical features, diagnostic methods, and complications, using visual aids like diagrams and slides. 3. **Group Discussions and Debates:** ◦ Organize group discussions or debates on topics related to Osteoporosis and Paget’s disease, such as prevention strategies and treatment options. ◦ Encourage critical thinking and evidence-based argumentation. 4. **Problem-Based Learning (PBL):** ◦ Implement PBL sessions where students are given clinical problems related to Osteoporosis and Paget’s disease. ◦ Have them research and present their findings and proposed solutions. ◦ Facilitate discussions to reinforce learning points.

		5. **Guest Lectures and Expert Talks:** ◦ Invite endocrinologists and orthopedic specialists to give lectures on their experiences with Osteoporosis and Paget's disease. ◦ Allow students to ask questions and interact with the experts. 6. **Complication Analysis:** ◦ Provide scenarios where students must identify and manage complications of Osteoporosis (e.g., fractures) and Paget's disease (e.g., bone deformities, arthritis). ◦ Discuss the long-term implications and management strategies
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 28.1	Demonstrate Examination of the diseases of bone	**Steps:** 1. **Preparation:** • Gather materials: Gloves, measuring tape, stethoscope, reflex hammer, and imaging requisition forms. • Ensure the patient is comfortably seated or lying down, with the affected area exposed. 2. **Initial History:** • Take a thorough history including symptoms (pain, swelling, deformity), duration, and any aggravating or relieving factors. • Ask about medical history, including osteoporosis, fractures, infections, or metabolic bone diseases. 3. **Inspection:**

- Observe the affected area for swelling, deformity, redness, or atrophy.
- Note any asymmetry, visible scars, or previous surgical marks.

4. **Palpation:**
    - Gently palpate the bones for tenderness, swelling, warmth, and irregularities.
    - Assess for crepitus (grating sensation) which may indicate fractures or degenerative changes.
5. **Range of Motion:**
    - Assess the range of motion in adjacent joints to check for any limitations or pain.
    - Use a goniometer to measure joint angles accurately.
6. **Strength Testing:**
    - Evaluate the strength of muscles attached to the affected bones by asking the patient to perform specific movements against resistance.
    - Compare strength on both sides.
7. **Special Tests:**
    - Perform specific tests to assess bone integrity:
        - **Percussion:** Tap the bone gently to check for tenderness or pain.
        - **Compression Test:** Apply gentle pressure along the bone axis to assess for pain indicating a fracture.
        - **Long Bone Palpation:** Palpate the entire length of long bones to identify any abnormalities or discontinuities.
8. **Neurological Examination:**
    - Assess sensation and motor function in the affected limb to rule out nerve involvement.
    - Check reflexes using a reflex hammer.
9. **Imaging and Further Tests:**
    - Recommend imaging studies such as X-rays, MRI, CT scans, or bone scans to confirm diagnosis and assess the extent of the disease.
    - Consider bone density testing (DEXA scan) for osteoporosis.
    - Conduct relevant blood tests to check for metabolic bone diseases (e.g., calcium, phosphate, alkaline phosphatase levels).
10. **Documentation:**
    - Record all findings, noting any abnormalities in structure, function, or movement.

		• Discuss potential diagnoses and further investigations if needed.
NLHP 28.2	Examination of pathological joints	**Steps:** 1. **Preparation:** • Gather materials: Gloves, measuring tape, goniometer, reflex hammer, and a penlight. • Ensure the patient is comfortably seated or lying down, with the affected joint exposed. 2. **Initial History:** • Take a thorough history, including symptoms (pain, stiffness, swelling), duration, and any aggravating or relieving factors. • Ask about medical history, including arthritis, trauma, infections, or autoimmune diseases. 3. **Inspection:** • Observe the joint for swelling, redness, deformity, or atrophy. • Note any asymmetry between joints. • Check for skin changes such as rashes or nodules. 4. **Palpation:** • Gently palpate the joint for tenderness, warmth, and swelling. • Assess for crepitus (grating sensation) which may indicate degenerative changes. • Evaluate the surrounding muscles and soft tissues for abnormalities. 5. **Range of Motion:** • Ask the patient to perform active movements, noting any pain or limitations. • Perform passive movements and measure the range of motion using a goniometer. • Compare the range of motion with the unaffected joint. 6. **Strength Testing:** • Evaluate muscle strength around the joint by asking the patient to perform specific movements against resistance. • Compare strength in both limbs. 7. **Special Tests:** • Perform specific tests based on the joint being examined:

		◦ **Knee:** Lachman test for ACL integrity, McMurray test for meniscal injuries. ◦ **Shoulder:** Hawkins-Kennedy test for impingement, Apprehension test for instability. ◦ **Elbow:** Varus and valgus stress tests for ligament integrity. ◦ **Wrist:** Phalen's test for carpal tunnel syndrome, Finkelstein's test for De Quervain's tenosynovitis. ◦ **Hip:** Trendelenburg test for gluteal muscle strength, FABER test for hip pathology. 8. **Neurological Examination:** • Assess sensation and motor function in the affected limb to rule out nerve involvement. • Check reflexes using a reflex hammer. 9. **Imaging and Further Tests:** • Recommend imaging studies such as X-rays, MRI, or CT scans to confirm diagnosis and assess the extent of joint pathology. • Consider blood tests to check for inflammatory markers or autoimmune diseases (e.g., ESR, CRP, rheumatoid factor). 10. **Documentation:** • Record all findings, noting any abnormalities in structure, function, or movement. • Discuss potential diagnoses and further investigations if needed.
NLHP 28.3	Examination of foot	**Steps:** 1. **Preparation:** • Gather materials: Gloves, measuring tape, goniometer, reflex hammer, and a flashlight. • Ensure the patient is comfortably seated or lying down with feet exposed. 2. **Initial History:** • Take a thorough history including symptoms (pain, swelling, numbness), duration, and any aggravating or relieving factors. • Ask about medical history including diabetes, arthritis, or previous foot injuries. 3. **Inspection:**

- Observe the feet for swelling, redness, bruising, deformities, or skin changes.
- Note any asymmetry between the feet.
- Check the condition of the nails and the presence of any calluses or ulcers.

4. **Palpation:**
   - Gently palpate the foot for tenderness, warmth, and swelling.
   - Assess the bones, joints, and soft tissues for any abnormalities.
   - Check for the presence of any masses or deformities.
5. **Range of Motion:**
   - Ask the patient to perform active movements such as dorsiflexion, plantarflexion, inversion, and eversion.
   - Assess the range of motion and note any pain or limitations.
   - Use a goniometer to measure joint angles accurately.
6. **Strength Testing:**
   - Evaluate the muscle strength of the foot and ankle by asking the patient to perform specific movements against resistance.
   - Compare strength in both feet.
7. **Special Tests:**
   - **Thompson Test:** Squeeze the calf muscle to assess for Achilles tendon rupture.
   - **Tinel's Sign:** Tap over the tarsal tunnel to check for nerve irritation.
   - **Homan's Sign:** Dorsiflex the foot to check for deep vein thrombosis.
   - **Windlass Test:** Dorsiflex the big toe to assess for plantar fasciitis.
8. **Neurological Examination:**
   - Assess sensation in different areas of the foot to check for neuropathy.
   - Test reflexes using a reflex hammer.
9. **Gait Analysis:**
   - Observe the patient's walking pattern to identify any structural or functional abnormalities.
   - Note any limping, uneven wear on shoes, or altered gait mechanics.
10. **Documentation:**
    - Record all findings, noting any abnormalities in structure, function, or movement.
    - Discuss potential diagnoses and further investigations if needed.

Topic 29 Shirobhighata (Cranio-cerebral Injurie/ Disorders) (LH :2 NLHT: 1 NLHP: 2)										
A3	**B3**	**C3**	**D3**	**E3**	**F3**	**G3**	**H3**	**I3**	**K3**	**L3**
CO1, CO3, CO5	Explain Scalp injuries and Skull Fracture and their management	CC	MK	K	L,L&PPT	VV-Viva,CL-PR,PRN	F&S	II	-	LH
CO1, CO3, CO5	Explain Brain injury (Mastulunga Abhighaata) - Cerebral concussion, Contusion and Laceration. Haemorrhage & its management - Acute Extradural haematoma, Acute Intracerebral and Chronic Subdural Haematoma	CC	MK	K	L,L&PPT	VV-Viva,P-RP,PRN,INT,QZ	F&S	II	-	LH
CO1, CO3, CO5	Elaborate on Brain tumuors and their management	CC	DK	K	BS,BL,RP,TUT,DIS	VV-Viva,QZ ,DEB,P-VIVA	F&S	II	-	NLHT29.1
CO1, CO3, CO5, CO6	Explain how to assess accurately and diagnose Head injuries, ensuring their appropriate primary management and treatment to prevent complications.	CC	DK	KH	CD,PBL,DIS,TUT,BL	VV-Viva,SP,P-ID,P-RP,PRN	F&S	II	-	NLHP29.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 29.1	Brain tumours and their management	1. **Interactive Presentations**: Use slideshows or videos to explain what brain tumors are, their types, symptoms, diagnosis, and treatment options1. You can include real-life case studies to make it more relatable. 2. **Role-Playing Scenarios**: Have students role-play as doctors, patients, and family members to understand the emotional and medical challenges associated with brain tumors. This can help develop empathy and communication skills.

		3. **Guest Speakers**: Invite healthcare professionals who specialize in neurology or oncology to speak about their experiences and advancements in brain tumor treatment. 4. **Simulation Exercises**: Use medical simulation tools or apps to allow students to perform virtual brain surgeries or diagnostic tests, giving them hands-on experience in a controlled environment. 5. **Discussion and Reflection**: Facilitate group discussions where students can share their thoughts and feelings about what they've learned. Encourage them to reflect on how they can support individuals affected by brain tumors.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 29.1	Examination of Head Injuries (Shirobhighaata)	**Steps:** 1. Preparation: • Gather materials: Gloves, penlight, stethoscope, reflex hammer, sterile gauze, and bandages. • Ensure the patient is lying down or seated comfortably with good lighting. 2. Initial History: • Take a detailed history, including the mechanism of injury, time of injury, and any immediate symptoms (loss of consciousness, headache, dizziness, nausea). • Ask about previous head injuries or underlying medical conditions. 3. Initial Assessment: • Perform a primary survey (ABCs: Airway, Breathing, Circulation) to ensure no life-threatening conditions. • Check the patient’s Glasgow Coma Scale (GCS) score to assess the level of consciousness.

4. Inspection:
    - Observe the head and face for visible injuries, swelling, bruising, or deformities.
    - Look for signs of external bleeding or cerebrospinal fluid leakage from the ears or nose.
    - Check for any scalp lacerations or hematomas.
5. Palpation:
    - Gently palpate the skull for tenderness, depression, or crepitus.
    - Assess the facial bones for any fractures or deformities.
6. Neurological Examination:
    - Assess the pupils for size, equality, and reactivity to light.
    - Test cranial nerve function, including eye movement, facial sensation, and muscle strength.
    - Evaluate motor and sensory function in the limbs to check for any deficits.
    - Assess reflexes using a reflex hammer.
7. Cognitive and Memory Assessment:
    - Ask the patient questions to assess orientation (time, place, person).
    - Test short-term and long-term memory by asking about recent events and past information.
8. Balance and Coordination:
    - Perform tests to assess balance and coordination, such as the Romberg test and finger-to-nose test.
    - Observe for any signs of ataxia or unsteadiness.
9. Imaging and Further Tests:
    - Recommend imaging studies such as CT scans or MRI if there is suspicion of intracranial injury.
    - Conduct additional tests if indicated, such as blood tests to check for metabolic or hematologic abnormalities.
10. Documentation:
    - Record all findings, noting any abnormalities in structure, function, or cognitive status.
    - Discuss potential diagnoses and further investigations if needed.

Topic 30 Kasheruka Vikara (Diseases of Spine) (LH :1 NLHT: 1 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO4, CO5	Explain the Mechanism, Pathology, Classification, Investigations, Complications and management of Tuberculosis of the spine	CC	MK	K	L&PPT ,L,DIS	T-CS,QZ , C-VC,OSCE,PRN	F&S	II	-	LH
CO1, CO3, CO5	Demonstrate the Mechanism, Pathology, Classification, Investigations, Complications and management of Ankylosing Spondylitis	PSY-GUD	MK	K	PBL,TUT,BS,RLE,X-Ray	VV-Viva,T-CS,QZ ,P-VIVA,PRN	F&S	II	H-PK	NLHT30.1
CO1, CO2, CO4, CO6	Demonstrate accurate assessment and diagnosis of spinal injuries and abnormalities, ensuring appropriate management and treatment to prevent further complications.	PSY-GUD	MK	K	TUT,DIS,CBL, X-Ray,SIM	DEB,INT,P-VIVA,SP, PRN	F&S	II	H-KC,H-PK	NLHP30.1
CO1, CO3, CO4	Explain the skills to stabilize neck fractures using the log roll technique ensuring safety and proper spinal alignment during patient transfer.	CC	MK	KH	RP,X-Ray,CBL, EDU,PER	P-EXAM,PRN,QZ , C-VC,P-VIVA	F&S	II	-	NLHP30.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 30.1	Ankylosing Spondylitis	1. **Case Study Analysis**: Provide students with a detailed case study of a patient with Ankylosing Spondylitis. Ask them to analyze the patient's symptoms, medical history, and diagnostic tests to understand the pathology and classification of the disease. 2. **Role-Playing**: Have students role-play as rheumatologists and patients. The "rheumatologists" can conduct a mock patient interview, perform a physical examination, and discuss potential

		management plans. 3. **Diagnostic Test Simulations**: Use simulation tools or apps to allow students to perform virtual diagnostic tests, such as X-rays or MRIs, to identify signs of Ankylosing Spondylitis. 4. **Group Discussions**: Facilitate group discussions where students can share their thoughts on the challenges of diagnosing and managing Ankylosing Spondylitis. Encourage them to think critically about the latest research and treatment options. 5. **Guest Speakers**: Invite healthcare professionals who specialize in rheumatology to speak about their experiences and advancements in the treatment of Ankylosing Spondylitis. 6. **Poster Presentations**: Have students create posters summarizing the key points about Ankylosing Spondylitis, including its mechanism, pathology, classification, investigations, complications, and management. They can present these posters to the class.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 30.1	Examination of Spinal Injuries and Abnormalities	**Steps:** 1. **Preparation:** • Gather materials: Gloves, measuring tape, reflex hammer, penlight, and stethoscope. • Ensure the patient is comfortably seated or lying down with the spine exposed. 2. **Initial History:** • Take a detailed history, including the mechanism of injury, duration of symptoms (pain, numbness, weakness), and any aggravating or relieving factors. • Ask about previous spinal injuries or surgeries and any underlying medical conditions. 3. **Inspection:** • Observe the spine for visible deformities, swelling, bruising, or muscle atrophy.

		• Note the patient's posture, alignment, and any abnormal curvatures (scoliosis, kyphosis, lordosis). 4. **Palpation:** • Gently palpate the spine from the cervical to the lumbar region, checking for tenderness, swelling, or muscle spasms. • Assess the spinous processes and paraspinal muscles for any abnormalities. 5. **Range of Motion:** • Ask the patient to perform movements such as flexion, extension, lateral bending, and rotation. • Evaluate the range of motion and note any pain or limitations. 6. **Neurological Examination:** • **Sensation:** Assess sensory function by testing light touch, pinprick, and vibration in the dermatomes. • **Motor Function:** Evaluate muscle strength in the upper and lower extremities using a grading system (0-5). • **Reflexes:** Check deep tendon reflexes (biceps, triceps, patellar, Achilles) and note any abnormalities. • **Special Tests:** Perform tests like the straight leg raise (for sciatica) and Spurling's test (for cervical radiculopathy). 7. **Gait and Balance:** • Observe the patient's walking pattern to identify any abnormalities. • Perform tests like the Romberg test to assess balance and coordination. 8. **Imaging and Further Tests:** • Recommend imaging studies such as X-rays, MRI, or CT scans to confirm diagnosis and assess the extent of the injury or abnormality. • Conduct additional tests like electromyography (EMG) if nerve damage is suspected. 9. **Documentation:** • Record all findings, noting any abnormalities in structure, function, or movement. • Discuss potential diagnoses and further investigations if needed.
NLHP 30.2	Hands-on training on 3 stages of neck fracture stabilization with logroll	**Steps:** Stage 1: Preparation

		1. Assess the patient: Confirm the patient's responsiveness, breathing, and address any severe bleeding. 2. Gather a team: Ensure you have at least three assistants to perform the log roll safely. 3. Position the patient: Have the patient lie flat on their back. Stage 2: Immobilization 1. Manual traction: The person at the patient's head stabilizes the neck by applying gentle traction. 2. Cervical collar: If available, apply a cervical collar to further immobilize the neck. 3. Prepare for log roll: Clearly explain each team member's role in the maneuver. Stage 3: Execution 1. Coordinate the roll: On a count of three, the team rolls the patient towards themselves, maintaining alignment of the head, neck, and spine. 2. Transfer to a spine board: Once rolled, carefully transfer the patient to a spine board for further stabilization and transport.

Topic 31 Stana Roga (Diseases of Breast) (LH :1 NLHT: 2 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO5	Explain Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Sthana Vidradhi - Breast abscess	CC	MK	K	SIM,DIS,L_VC,TUT,PER	COM,PP-Practical,CL-PR,P-VIVA,P-EXAM	F&S	II	-	NLHT31.1
CO1,	Explain Aetiopathogenesis, Classification, Clinical Features,	CK	MK	K	SIM,CD	CL-PR,P-E	F&S	II	-	NLHT31.2

CO3, CO5	Diagnosis, Complications and Management of Fibroadenoma and Fibroadenosis				,L&PPT ,D-BED ,DIS	XAM,P-CA SE,P-VIVA ,VV-Viva				
CO1, CO3, CO4, CO5	Define Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications, and Management of Stana Arbuda & Breast tumours and their Management.	CK	MK	K	BL,L&P PT ,L_VC, L	DEB,PUZ, QZ ,VV-Viva,T-CS	F&S	II	-	LH
CO1, CO3, CO4, CO5	Demonstrate the skills to conduct a clinical breast examination, educate patients on how to perform self-breast examinations at home & promote early detection of breast abnormalities.	PSY-GUD	MK	K	BL,PBL ,TUT,D IS,PER	P-EXAM,S P,C-INT, C-VC,QZ	F&S	II	-	NLHP31.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 31.1	Sthana Vidradhi - Breast abscess	1. **Interactive Case Studies**: Present detailed case studies that cover the aetiopathogenesis, classification, clinical features, diagnosis, complications, and management of breast abscesses. Have students analyze and discuss these cases in small groups. 2. **Hands-On Workshops**: Use medical models or simulations to teach students about the physical examination of the breast and techniques for diagnosing and managing abscesses. This practical approach can be very enlightening. 3. **Guest Lectures**: Invite medical professionals such as surgeons or infectious disease specialists to speak about their experiences and advancements in the treatment of breast abscesses. 4. **Poster Sessions**: Have students create educational posters that summarize the key aspects of breast abscesses, including aetiopathogenesis, classification, clinical features, diagnosis, complications, and management. They can present these posters in a mini-conference format. 5. **Debate Sessions**: Organize debates on controversial or emerging topics related to breast

		abscesses, such as antibiotic resistance or new surgical techniques. This can encourage critical thinking and engagement.
NLHT 31.2	Fibroadenoma and Fibroadenosis	1. **Case Studies**: Present detailed case studies covering the aetiopathogenesis, classification, clinical features, diagnosis, complications, and management of both fibroadenoma and fibroadenosis. Have students analyze and discuss these in small groups to compare and contrast. 2. **Role-Playing**: Conduct role-playing exercises where students act as healthcare professionals and patients. This can involve diagnostic interviews, physical examinations, and discussions on management plans. 3. **Histopathology Workshops**: If possible, provide slides of histopathological samples of fibroadenomas and fibroadenosis. Teach students to identify characteristic features under the microscope. 4. **Expert Talks**: Invite guest speakers, such as pathologists or oncologists, to discuss their experiences and advancements in the diagnosis and management of these conditions. 5. **Patient Education Material**: Encourage students to create brochures or videos aimed at educating patients about fibroadenoma and fibroadenosis, their diagnosis, and management options. 6. **Clinical Simulation**: Utilize medical simulation tools or apps to allow students to virtually practice diagnostic and treatment procedures for fibroadenoma and fibroadenosis.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 31.1	Examination of the breast and patient education	**Steps:**

	for ‘self-examination of breast.	Self-Examination of Breast Education 1. Explain the importance: Stress the importance of regular self-examinations for early detection of Breast abnormalities. 2. Demonstrate the technique: Show the patient how to perform a self-examination using a step-by-step approach. • Visual inspection: In front of a mirror, look for changes in size, shape, and skin texture. • Palpation in the shower: Using a soapy hand, gently palpate the breast and armpit area. • Palpation lying down: Place a pillow under the shoulder, raise the arm, and use the opposite hand to palpate the breast. 3. Frequency: Recommend performing the self-examination once a month, ideally a week after the menstrual period ends.

Topic 32 Urah Vikara (Diseases of Chest) (LH :1 NLHT: 1 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO5, CO6	Explain Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications, and Management of Chest injury, Fracture of Ribs, Pneumothorax, Haemothorax, Stove in Chest, Flail Chest & Surgical Emphysema.	CC	MK	K	L&PPT ,L	CL-PR,INT ,T-CS,PRN, VV-Viva	F&S	II	-	LH
CO1, CO3, CO5, CO6	Discuss the Aetiopathogenesis, Classification, Clinical Features, & management Diagnosis of Pleurisy, Pleural Abscess, Pleural Effusion, and Tumours of the Lung.	CC	MK	K	TPW,C D,L_VC ,RP,X-Ray	P-MOD,OS CE,PRN,O SPE,P-EXAM	F&S	II	-	NLHT32.1
CO1, CO3, CO5, CO6	Demonstrate the systematic examination of chest injuries and Elaborate on diagnostic and management skills for trauma patients.	CAP	MK	KH	D,RP,E DU,ML, PT	P-VIVA, C-VC,CL-PR, INT,P-PRF	F&S	II	-	NLHP32.1

CO1, CO3, CO5, CO6	Demonstrate the skills to perform a thorough examination of chest diseases, Identify common and uncommon chest diseases through physical examination and history taking, and elaborate on diagnostic and management skills for patients with chest diseases.	PSY-GUD	MK	K	CBL,X-Ray,DIS,CD,TUT	VV-Viva, C-VC,P-EXAM,PRN,INT	F&S	II	-	NLHP32.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 32.1	Examination of Pleurisy, Pleural Abscess, Pleural Effusion, Tumours of the Lung	1. **Case Study Analysis**: Break students into small groups and give each group a detailed case study involving one of the conditions (Pleurisy, Pleural Abscess, Pleural Effusion, or Lung Tumors). They'll analyze the aetiopathogenesis, classification, clinical features, diagnosis, and management. This can encourage teamwork and critical thinking. 2. **Diagnostic Role-Playing**: Students can take turns role-playing as doctors and patients. The "doctors" can interview "patients" to diagnose their condition, discussing symptoms and possible diagnostic tests. This will help students practice communication skills and clinical reasoning. 3. **Interactive Simulations**: Utilize medical simulation software or apps to let students practice diagnosing and managing these conditions in a virtual setting. This can provide a hands-on learning experience. 4. **Guest Lectures**: Invite pulmonologists, thoracic surgeons, or oncologists to share their clinical experiences and discuss advancements in the treatment of these conditions. 5. **Group Discussions**: Facilitate group discussions on the complications and management strategies for these conditions. Encourage students to share their thoughts and ask questions.

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 32.1	Examination of injuries of the chest (Urah abhigatha)	**Steps** Initial Assessment 1. Scene Safety: Ensure the environment is safe for both the patient and healthcare providers. 2. Primary Survey: Follow the ABCDE approach (Airway, Breathing, Circulation, Disability, Exposure) to assess and stabilize the patient. 3. Obtain Consent: Explain the procedure to the patient and obtain their consent, if they are conscious and able to provide it. Detailed Examination 1. Inspection: Visually inspect the chest for signs of injury such as bruising, swelling, open wounds, or deformities. 2. Palpation: Gently palpate the chest wall to identify areas of tenderness, crepitus (a crackling sensation), or step-offs in the rib contour. 3. Percussion: Tap on the chest wall to assess for dullness or hyperresonance, indicating possible fluid accumulation or pneumothorax. 4. Auscultation: Listen to breath sounds using a stethoscope to detect any abnormalities such as absent breath sounds, which might suggest pneumothorax or hemothorax. Supplementary Assessment 1. Imaging: If available, order a chest X-ray or ultrasound to get a clearer picture of the injuries. 2. Vitals Monitoring: Continuously monitor the patient's vital signs (heart rate, respiratory rate, blood pressure, oxygen saturation) to detect any deterioration.
NLHP 32.2	Examination of Diseases of the Chest	**Steps:**

		Initial Assessment 1. Patient History: Gather a comprehensive history, including symptoms such as cough, chest pain, shortness of breath, and past medical history. 2. Consent and Explanation: Explain the procedure to the patient and obtain their consent. 3. Position the Patient: Have the patient sit upright or lie down in a comfortable position. Physical Examination 1. Inspection: Observe the chest for any visible abnormalities, such as deformities, use of accessory muscles, or asymmetry. 2. Palpation: Check for tenderness, chest wall deformities, and tactile fremitus by placing hands on the chest and feeling for vibrations when the patient speaks. 3. Percussion: Tap on the chest wall to assess for areas of dullness or hyperresonance, indicating possible fluid or air in the pleural space. 4. Auscultation: Use a stethoscope to listen to breath sounds. Note any abnormal sounds such as wheezes, crackles, or diminished breath sounds. Supplementary Assessment 1. Vital Signs: Monitor vital signs, including heart rate, respiratory rate, blood pressure, and oxygen saturation. 2. Imaging: If available, order chest X-ray, CT scan, or other relevant imaging studies for further evaluation.

Topic 33 Anna Nalika Vikara (Diseases of Oesophagus) (LH :2 NLHT: 1 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3

CO1, CO3, CO5	Explain aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies and Reflux Oesophagitis	CC	MK	K	L,L&GD,L&PPT	T-CS,QZ ,P-EXAM,P-VIVA	F&S	II	-	LH
CO1, CO3, CO5, CO6	Describe Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and management of Oesophageal Varices	CC	MK	K	PT,D,L_VC,DIS,CBL	PRN,COM,INT,QZ ,P-VIVA	F&S	II	-	NLHT33.1
CO1, CO3, CO5	Define Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and management of – CA of Oesophagus and their management	CK	DK	K	L,L&PPT	PP-Practical,PRN,VV-Viva,T-CS,P-EXAM	F&S	II	-	LH
CO1, CO3, CO5	Demonstrate the skills to assess and diagnose dysphagia, Identify the various causes of dysphagia through comprehensive examination techniques, and explain appropriate management and referral for patients with dysphagia.	PSY-GUD	DK	KH	TUT,CBL,W,D-BED,DIS	P-VIVA,P-RP,P-EXAM,OSCE,PRN	F&S	II	-	NLHP33.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 33.1	Examination of Oesophageal Varices	1. **Case Study Analysis**: Present detailed patient case studies, covering the aetiopathogenesis, classification, clinical features, diagnosis, complications, and management of oesophageal varices. Students can work in groups to analyze and discuss each case. 2. **Role-Playing**: Students can role-play as gastroenterologists and patients. The "doctors" can conduct mock patient interviews and physical exams, discussing potential diagnostic tests and management plans. 3. **Endoscopy Simulation**: Use videos or simulation tools to show how an endoscopy is performed and how oesophageal varices are identified and treated during the procedure.

		4. **Guest Speakers**: Invite gastroenterologists or hepatologists to speak about their experiences in diagnosing and treating oesophageal varices. They can also discuss the latest research and advancements. 5. **Group Discussions**: Facilitate group discussions on the complications and management strategies for oesophageal varices. Encourage students to share their thoughts and ask questions.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 33.1	Examination of Dysphagia	**Preparation Steps:** Patient History • Gather History: Ask about the onset, duration, and nature of swallowing difficulties. Enquire about associated symptoms like weight loss, coughing during meals, or pain while swallowing. • Medical History: Document past medical history, including any neurological disorders, head and neck surgeries, or recent infections. • Physical Examination • Oral Examination: Inspect the oral cavity for abnormalities such as lesions, dry mouth, or dental issues. • Neck Examination: Palpate the neck for any masses or lymphadenopathy. • Cranial Nerve Assessment: Evaluate the function of cranial nerves involved in swallowing (V, VII, IX, X, XII). • Swallowing Assessment: Observe the patient as they swallow water and solid food, noting any difficulties or signs of aspiration. • Supplementary Assessment

		• Videofluoroscopic Swallow Study (VFSS): If available, this imaging technique can provide detailed information on the mechanics of swallowing. • Esophagogastroduodenoscopy (EGD): For a more indepth examination of the esophagus and stomach if structural abnormalities are suspected. • Manometry: Measure the pressure within the esophagus to evaluate its function (if possible/available)

Topic 34 Gulma Roga (LH :1 NLHT: 0 NLHP: 0)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1	Explain Nidana, Prakara, Lakshana, Upadrava, and Chikitsa of Gulma	CC	MK	K	L,L&PPT	T-CS,PRN, VV-Viva	F&S	II	-	LH

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity

Topic 35 Shoola Vyadhi (LH :1 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO4	Define Nidana, Prakara, Lakshana, Upadrava and Chikitsa of Shoola	CK	DK	K	L,L&PPT	P-VIVA,VV-Viva,T-CS,PRN	F&S	II	-	LH
CO1, CO3, CO5, CO6	Demonstrate comprehensive assessment of patients presenting with acute abdominal pain, and explain potential life-threatening conditions and various causes of acute abdomen, and diagnostic and management skills for emergencies.	PSY-GUD	MK	KH	PSM,RLE,SIM,X-Ray, PER	PRN,T-CS, OSCE,CL-PR,P-VIVA	F&S	II	-	NLHP35.1

Non Lecture Hour Theory		
S.No	**Name of Activity**	**Description of Theory Activity**
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 35.1	Examination of Acute Abdomen	**Steps:** Initial Assessment 1. Patient History: Collect a detailed history of the pain, including onset, location, duration, and character. Enquire about associated symptoms like nausea, vomiting, fever, or changes in bowel habits. 2. General Observation: Assess the patient's general appearance and vital signs. Look for signs of distress, pallor, or diaphoresis. Physical Examination 1. Inspection: Observe the abdomen for distension, scars, hernias, or visible peristalsis. 2. Palpation: Perform gentle and then deeper palpation to identify areas of tenderness, rebound tenderness, guarding, or masses. 3. Percussion: Percuss the abdomen to detect areas of tenderness, dullness, or tympany. 4. Auscultation: Listen to bowel sounds in all quadrants. Note any abnormalities like hyperactive, hypoactive, or absent sounds. • Specific Signs: Check for specific signs like Murphy's sign, McBurney's point tenderness, and Rovsing's sign. Supplementary Assessment

		1. Laboratory Tests: Order relevant blood tests (e.g., complete blood count, electrolytes, liver enzymes, amylase, lipase) to aid in diagnosis. 2. Imaging: If indicated, obtain imaging studies such as abdominal X-rays, ultrasound, or CT scan to further evaluate the underlying cause.

Topic 36 Udara Roga (LH :1 NLHT: 2 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3	Define Nidan, Prakar, Samprapti, Laxan, Chikitsa Of Udara, Yakritpleehodar,Chidrodar, Baddhagudodar	CK	MK	K	L,L&PPT	T-CS,P-VIVA,VV-Viva,P-EXAM	F&S	II	-	LH
CO1, CO3, CO4	Discuss Aetiopathogenesis, Clinical, Features, Diagnosis, Complications, and Management of Ascites	CC	MK	K	DIS,PSM,LRI, D-BED, CBL	PRN,OSPE, QZ ,DEB, C-VC	F&S	II	H-KC	NLHT36.1
CO1, CO3, CO4, CO5	Discuss Aetiopathogenesis, Clinical, Features, Diagnosis of Peptic Ulcer Complications, and Management of Peritonitis	CC	MK	K	CBL,PT ,BL,X-Ray,PER	CL-PR,P-EXAM, C-VC,PRN,T-CS	F&S	II	H-KC	NLHT36.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 36.1	Examination of Ascites	1. **Interactive Case Studies**: Present case studies detailing patients with ascites, focusing on aetiopathogenesis, clinical features, diagnosis, complications, and management. Have students analyze and discuss these in small groups. 2. **Role-Playing**: Have students role-play as healthcare professionals and patients. The "doctors" can conduct mock patient interviews, perform physical exams, and discuss diagnostic tests and management plans for ascites.

		3. **Ultrasound Workshops**: Use videos or simulation tools to demonstrate how to perform an ultrasound for detecting ascites. Teach students to identify key features and assess the extent of fluid accumulation. 4. **Hands-On Simulations**: Use medical simulation tools or models to allow students to practice diagnostic and therapeutic procedures related to ascites, such as paracentesis. 5. **Group Discussions**: Facilitate group discussions on the challenges and complexities of managing ascites, encouraging students to ask questions and share insights.
NLHT 36.2	Examination of Peritonitis	1. **Detailed Case Studies**: Provide comprehensive patient case studies covering aetiopathogenesis, clinical features, diagnosis, complications, and management of peritonitis. Have students dissect and discuss these in small groups. 2. **Role-Playing Exercises**: Get students to role-play as healthcare professionals and patients. The "doctors" can conduct mock patient interviews and physical exams, diagnosing and discussing management strategies for peritonitis. 3. **Diagnostic Simulations**: Use simulation tools or apps to let students practice diagnostic procedures, such as performing a physical examination or ordering and interpreting imaging tests and lab results. 4. **Guest Lectures**: Bring in surgeons or gastroenterologists to discuss their clinical experiences and advancements in the diagnosis and management of peritonitis. 5. **Group Discussions**: Facilitate discussions on the challenges and strategies for managing peritonitis, encouraging students to share their insights and questions.
Non Lecture Hour Practical		

S.No	Name of Practical	Description of Practical Activity

Topic 37 Aamashaya Evam Adho-Aamashaya Vikara (Diseases of Stomach and Duodenum) (LH :2 NLHT: 1 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2	Explain Etiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management Peptic Ulcer	CK	MK	K	L&PPT ,L	QZ ,CL-PR ,VV-Viva,T -OBT,PP-Practical	F&S	II	-	LH
CO1, CO3, CO5	Describe Carcinoma of Stomach in detail	CK	MK	K	L,L&PPT	CBA,INT,PRN,Log book,PP-Practical	F&S	II	-	LH
CO1, CO3, CO6	Discuss the Aetiopathogenesis, Clinical Features, Diagnostic criteria, Management strategies (medical and surgical), and Complications of Pyloric Stenosis.	CC	MK	K	TUT,L &GD,IBL,FC,PBL	Log book,CBA,T-CS,QZ ,DEB	F&S	II	-	NLHT37.1
CO1, CO2, CO4	Demonstrate the skills to systematically assess, diagnose and manage abdominal lumps. Differentiate between various types of abdominal lumps based on clinical examination.	PSY-GUD	MK	K	TUT,L &GD,D, L&PPT ,SIM	PP-Practical,VV-Viva, SP,P-VIVA,T-CS	F&S	II	-	NLHP37.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 37.1	Examination of Pyloric Stenosis	**Steps-** Theory 1. Lecture: Aetiopathogenesis and classification. 2. Discussion: Clinical features and diagnostic criteria.

		3. Case studies: Diagnosis and management. 4. Group discussion: Complications and prevention. 5. Interactive session: Q&A. Practical 1. Clinical demonstration: Examination techniques. 2. Hands-on training: Diagnostic procedures (e.g., ultrasound). 3. Case presentation: Students present cases. Clinical 1. Live patient demonstration: Diagnosis and management. 2. Observational learning: Students observe expert consultations. 3. Interactive session: Q&A and discussion.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 37.1	Examination of Abdominal lump	**Steps:** **Patient History** 1. Gather History: Ask about the onset, duration, and progression of the lump. Enquire about associated symptoms like pain, changes in bowel habits, weight loss, or fever. 2. Medical History: Document past medical history, including any surgeries, gastrointestinal conditions, or family history of cancer. **Physical Examination** 1. Inspection: Observe the abdomen for visible lumps, asymmetry, or skin changes. 2. Palpation:

- Surface Palpation: Gently palpate the lump to determine its location, size, shape, and surface characteristics.
- Deep Palpation: Assess the consistency (soft, firm, hard), mobility, and tenderness of the lump.
- Assessing for Pulsation: Determine if the lump is pulsatile, which could indicate a vascular origin like an abdominal aortic aneurysm.

3. Percussion:
   - Dullness: Percuss over the lump to identify areas of dullness, which can indicate solid or cystic masses.
   - Resonance: Note any areas of resonance, which might suggest a gaseous component.
4. Auscultation:
   - Listen over the lump for bowel sounds or bruits, which can provide clues about its nature**.**

Supplementary Assessment

1. Imaging: Order appropriate imaging studies such as ultrasound, CT scan, or MRI to further evaluate the lump.
2. Laboratory Tests: Conduct relevant blood tests (e.g., complete blood count, tumor markers) to aid in diagnosis.

Topic 38 Kshudrantra Vikara (Diseases of Small Intestine) (LH :4 NLHT: 2 NLHP: 1)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO4, CO6	Describe the Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications, and management of Tuberculosis of the Small Intestine	CK	MK	K	L&PPT ,L	PRN,PP-Practical,VV-Viva,CHK, T-CS	F&S	II	H-KC	LH
CO1, CO3,	Explain the Pathophysiology, Clinical features, Diagnostic criteria, and Management strategies of Blind loop syndrome,	CC	DK	K	TUT,CD,L&PP	P-VIVA,DOPS,VV-Vi	F&S	II	H-KC	NLHT38.1

CO4, CO7	Short Bowel Syndrome & Typhoid Enteritis				T ,D-BED,L&GD	va,DEB,PP-Practical				
CO1, CO3, CO4	Describe Aetiopathogenesis, Classification, Clinical Features, Examinations, Investigations & Diagnosis, Complications and Management of Intestinal Obstruction.	CC	MK	K	L,L&PPT	P-VIVA,DEB,PP-Practical,Log book,P-EXAM	F&S	II	-	LH
CO1, CO3, CO6	Explain the Pathophysiology, Clinical features, Diagnostic criteria, Management strategies, and Complications with Prevention methods of Intussusception.	CC	DK	K	L&GD, RP,FC, L_VC,CD	INT,DEB,T-CS,P-VIVA,PRN	F&S	II	-	NLHT38.2
CO1, CO3, CO6	Enumerate Etiopathogenesis, Classification, Clinical Features, investigations, Diagnosis, Complications and management of intestinal perforation	CK	MK	K	L&PPT ,L	CL-PR,P-EXAM,Log book,QZ ,T-CS	F&S	II	-	LH
CO1, CO3	Explain the Pathophysiology, Clinical features, Diagnostic criteria, Management strategies, and Complications with Prevention methods of Benign and Malignant neoplasms of the intestine.	CK	NK	K	L,L&PPT	P-EXAM,PP-Practical, INT,T-CS,PRN	F&S	II	-	LH
CO1, CO2, CO4	Demonstrate the skills to conduct a thorough abdominal examination with its Diagnosis and Management, identifying various abdominal pathologies.	PSY-GUD	MK	KH	DIS,PER,PT,CBL,SIM	T-CS,INT,P-EXAM,CBA	F&S	II	-	NLHP38.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 38.1	Demonstration of Blind loop syndrome, Short	**Activities -**

	Bowel Syndrome & Typhoid Enteritis	Blind Loop Syndrome- 1. Case study presentation: Students present a case of Blind Loop Syndrome. 2. Group discussion: Causes, symptoms, and complications. 3. Interactive lecture: Pathophysiology and diagnosis. 4. Clinical Description: Students analyze and discuss case scenarios. 5. Radiology session: Interpretation of imaging studies (e.g., CT scans). Short Bowel Syndrome 1. Lecture: Pathophysiology and classification. 2. Case study presentation: Students present a case of Short Bowel Syndrome. 3. Group discussion: Nutritional management and complications. 4. Problem-based learning: Students develop a treatment plan. 5. Guest lecture: Expert discussion on intestinal transplantation. Typhoid Enteritis 1. Interactive lecture: Pathophysiology and epidemiology. 2. Case study presentation: Students present a case of Typhoid Enteritis. 3. Group discussion: Complications and prevention. 4. Microbiology session: Laboratory diagnosis and antibiotic resistance. 5. Public health session: Vaccination and prevention strategies.
NLHT 38.2	Examination of Intussusception	Activities: Lecture and Discussion 1. Introduction to intussusception: definition, epidemiology, and pathophysiology. 2. Clinical features and diagnostic criteria: symptoms, signs, and imaging studies. 3. Management strategies: non-surgical (e.g., enema) and surgical. Case Studies and Group Discussion 1. Case study presentation: students present a case of intussusception. 2. Group discussion: diagnosis, management, and complications. 3. Problem-based learning: students develop a treatment plan. Practical and Clinical Sessions

		1. Clinical vignettes: students analyze and discuss case scenarios. 2. Radiology session: interpretation of imaging studies (e.g., ultrasound, CT scans). 3. Simulation-based training: students practice diagnosing and managing intussusception. Interactive and Online Sessions 1. Online lecture: expert discussion on intussusception management. 2. Interactive quiz: assessment of knowledge. 3. Virtual patient simulation: students practice diagnosing and managing intussusception.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 38.1	Per abdominal Clinical Examination.	**Steps:** Patient History 1. Gather History: Ask about symptoms such as pain, nausea, vomiting, bowel habits, and appetite changes. 2. Medical History: Document past medical history, including any gastrointestinal conditions, surgeries, or relevant family history. Physical Examination 1. Inspection: • Observe the abdomen for any visible abnormalities like scars, distension, or asymmetry. • Note any signs such as jaundice, spider angiomas, or visible peristalsis. 2. Palpation: • Perform light and deep palpation to assess for tenderness, masses, or organomegaly.

		• Check for rebound tenderness, guarding, and rigidity. • Evaluate liver size and tenderness (Murphy's sign), spleen, kidneys, and aorta. 3. Percussion: • Percuss all areas of the abdomen to assess for tympany or dullness. • Identify areas of abnormal resonance, indicating possible fluid, air, or mass presence. 4. Auscultation: • Use a stethoscope to listen to bowel sounds in all four quadrants. • Note any abnormal sounds like hyperactive, hypoactive, or absent bowel sounds. Supplementary Assessments 1. Laboratory Tests: Order relevant blood tests (e.g., liver function tests, amylase, lipase) based on clinical findings. 2. Imaging: If indicated, obtain imaging studies such as ultrasound or CT scan to further evaluate abdominal pathology.

Topic 39 Brihadantra Vikara (Diseases of Large Intestine) (LH :2 NLHT: 1 NLHP: 1)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO6	Enumerate Aetiopathogenesis, Classification, Clinical Features, Examinations, Investigations & Diagnosis, Complications, and Management of Crohn's Disease and Ulcerative Colitis	CK	DK	K	L&PPT ,L	DEB,PRN, P-VIVA,V V-Viva,PP-Practical	F&S	II	-	LH
CO1, CO2, CO3, CO4	Enumerate Aetiopathogenesis, Classification, Clinical Features, Examinations, Investigations & Diagnosis, Complications, and Management of Appendicitis (Undukapuchashotha).	CK	MK	K	L,L&PPT	CL-PR,INT,QZ ,P-PRF,PRN	F&S	II	-	LH

CO1, CO3	Explain the clinical presentation, diagnosis, staging, epidemiology, and risk factors of Carcinoma Colon with its management options (surgery, chemotherapy, radiation). Elaborate on the importance of screening and prevention.	CC	NK	K	PER,CBL,D,W,RLE	T-CS,CBA,PP-Practical,PRN,VV-Viva	F&S	II	-	NLHT39.1
CO1, CO2, CO4	Demonstrate the skills to assess, diagnose, and manage Chronic abdominal conditions. Differentiate between various Chronic abdominal pathologies through a systematic examination.	PSY-GUD	MK	K	RP,REC,CD,PT,TUT	PP-Practical,P-PRF,INT,P-VIVA,VV-Viva	F&S	II	-	NLHP39.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 39.1	Diagnosis of Carcinoma of Colon	**Activities:** Lecture and Discussion 1. Introduction to Carcinoma Colon: epidemiology, risk factors, and pathophysiology. 2. Clinical presentation and diagnosis: symptoms, signs, and diagnostic tests. 3. Management options: surgery, chemotherapy, radiation, and targeted therapy. Case Studies and Group Discussion 1. Case study presentation: students present a case of Carcinoma Colon. 2. Group discussion: diagnosis, management, and complications. 3. Problem-based learning: students develop a treatment plan. Practical and Clinical Sessions (7-9) 1. Clinical vignettes: students analyze and discuss case scenarios. 2. Endoscopy session: observation of colonoscopy procedure. 3. Radiology session: interpretation of imaging studies (e.g., CT scans). Interactive and Online Sessions 1. Online lecture: expert discussion on Carcinoma Colon management. 2. Interactive quiz: assessment of knowledge. 3. Virtual patient simulation: students practice diagnosing and managing Carcinoma Colon.

		Hands-on Activities 1. Colonoscopy simulation: students practice performing colonoscopy. 2. Surgical demonstration: observation of colectomy procedure. 3. Pathology session: examination of colon cancer specimens.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 39.1	Examination of Chronic Abdomen	**Steps:** Patient History 1. Gather History: Ask about the onset, duration, and nature of abdominal pain or discomfort. Inquire about associated symptoms such as weight loss, changes in bowel habits, nausea, and vomiting. 2. Medical History: Document past medical history, including any gastrointestinal conditions, surgeries, medications, and family history. Physical Examination 1. Inspection: • Observe the abdomen for visible abnormalities such as scars, distension, or skin changes. • Look for signs such as jaundice, spider angiomas, or masses. 2. Palpation: • Perform light and deep palpation to assess for tenderness, masses, or organomegaly. 3. Percussion: • Percuss all areas of the abdomen to assess for tympany or dullness. • Identify areas of abnormal resonance, indicating possible fluid, air, or mass presence.

		• Check for rebound tenderness, guarding, and rigidity. • Evaluate liver size and tenderness (Murphy's sign), spleen, kidneys, and aorta. 4. Auscultation: • Use a stethoscope to listen to bowel sounds in all four quadrants. • Note any abnormal sounds like hyperactive, hypoactive, or absent bowel sounds. Supplementary Assessments 1. Laboratory Tests: Order relevant blood tests (e.g., , Complete blood count, RBS, Liver function tests, Kidney function tests, S.amylase, S. lipase) based on clinical findings. 2. Imaging: If indicated, obtain imaging studies such as ultrasound, CT scan, or MRI to further evaluate abdominal pathology. 3. Endoscopy: Consider endoscopic examinations like upper GI endoscopy or colonoscopy if gastrointestinal tract involvement is suspected.

Topic 40 Guda Vikara (Diseases of Rectum and Anal Canal) (LH :5 NLHT: 4 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO5	Explain the surgical anatomy of the anus and rectum, the physiology of defecation and continence, anatomical landmarks, and relationships relevant to anorectal surgery. Discuss common anorectal conditions (e.g., hemorrhoids, fistulas, fissures) and skills in examining and diagnosing anorectal conditions.	CC	MK	K	L_VC,D-BED,L&GD,PER,CD	VV-Viva,PRN,T-CS,C-VC,P-VIVA	F&S	III	V-RS,V-RS	NLHT40.1
CO1, CO3	Describe Aetiopathogenesis, Classification, Clinical Features, Investigations, Diagnosis, Complications, and management of Prolapse of the rectum (Gudabramsha)	CK	NK	K	L&GD, L,L&PPT	T-OBT,VV-Viva,T-CS,Log book,PP-Practical	F&S	III	-	LH

CO1, CO4	Describe Aetiopathogenesis, Classification, Clinical Features, Examinations, Investigations & Diagnosis, Complications and Management of Anorectal Abscesses (Guda Vidradhi) and Bhagandara (Fistula-in-ano).	CK	MK	K	L&GD, L&PPT ,X-Ray, PSM,PT	PRN,VV-Viva,T-CS,INT,P-VIVA	F&S	III	-	NLHT40.2
CO1, CO2, CO3, CO7	Describe Aetiopathogenesis, Classification, Clinical Features, Investigations, Diagnosis, Complications, and management of Fistula in ano	CK	MK	K	L&PPT ,L	CBA,PRN, T-CS,PP-Practical,VV-Viva	F&S	III	-	LH
CO1, CO2, CO3, CO6, CO7	Describe Aetiopathogenesis, Classification, Clinical Features, Investigations, Diagnosis, Complications, and Management of Haemorrhoids.	CK	MK	K	L,L&PPT	P-CASE,PP-Practical,Log book,T-CS,VV-Viva	F&S	III	-	LH
CO1, CO2, CO3, CO4, CO6	Enumerate Nidan, Prakara, Samprapti, Laxana and Chikitsa of Arshas	CK	MK	K	L&PPT ,L	VV-Viva,PRN,DEB,T-CS,INT	F&S	III	-	LH
CO1, CO2, CO3, CO7	Describe Aetiopathogenesis, Classification, Clinical Features, Examinations, Investigations & Diagnosis, Complications and Management of Fissure-in-Ano.	CK	MK	K	L&PPT ,PER,L &GD,CD,D	T-CS,Log book,INT,P-EXAM,P-VIVA	F&S	III	-	NLHT40.3
CO1, CO3, CO6	Describe Etiopathogenesis, Classification, Clinical Features, Investigations, Diagnosis, Complications and management of Carcinoma of Rectum And Anal canal	CK	MK	K	L&GD, L,L&PPT	VV-Viva,P-EXAM,P-VIVA,PP-Practical,T-CS	F&S	III	-	LH
CO1, CO2,	Describe Aetiopathogenesis, Classification, Clinical Features, Examinations, Investigations & Diagnosis, Complications and	CK	NK	K	L&PPT ,SIM,T	PP-Practical,SP,P-VIV	F&S	III	-	NLHT40.4

CO4	Management of Pilonidal Sinus, Proctitis, Pruritis Ani & Injuries of Anorectal region				UT,CBL,L_VC	A,T-CS,VV-Viva				
CO1, CO2, CO4, CO5	Demonstrate the skills to identify, examine, diagnose, and manage sinus tracts and fistulas, and distinguish various types of sinuses, and fistulas.	PSY-GUD	MK	KH	PBL,L&PPT ,PER,CBL, DIS	DOPS,CHK,DOPS,T-CS,PP-Practical	F&S	III	-	NLHP40.1
CO1, CO2, CO3	Demonstrate the skills to conduct a thorough examination, Diagnosis, and management of rectal cases and distinguish various types of Rectal Pathologies	PSY-GUD	MK	K	FC,DIS, SIM,D-M,L&GD	T-CS,P-EXAM,SP,Mini-CEX,DOPS	F&S	III	-	NLHP40.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 40.1	Surgical Anatomy & physiology of Ano Rectal Conditions	**Activities:** Lecture and Discussion 1. Surgical anatomy of the anus and rectum. 2. Physiology of defecation and continence. 3. Anatomical relationships and landmarks. Dissection and Practical Sessions 1. Cadaveric dissection: students explore anorectal anatomy. 2. Prosection demonstration: detailed examination of anorectal structures. 3. Identification of anatomical landmarks and relationships. Case Studies and Group Discussion 1. Case study presentation: students present anorectal conditions. 2. Group discussion: diagnosis, management, and complications. 3. Problem-based learning: students develop treatment plans. Clinical and Endoscopy Sessions 1. Clinical examination: students practice examining patients. 2. Endoscopy demonstration: observation of anoscopy and sigmoidoscopy.

		3. Radiology session: interpretation of imaging studies (e.g., MRI, CT scans). Interactive and Online Sessions 1. Online lecture: expert discussion on anorectal surgery. 2. Interactive quiz: assessment of knowledge. 3. Virtual patient simulation: students practice diagnosing and managing anorectal conditions.
NLHT 40.2	Examination of Anorectal Abscesses (Guda Vidradhi) and Bhagandara (Fistula-in-ano)	**Activities:** Lecture and Discussion 1. Introduction to Anorectal Abscesses (Guda Vidradhi): definition, etiology, and pathophysiology. 2. Clinical presentation and diagnosis: symptoms, signs, and diagnostic tests. 3. Management options: medical, surgical, and Ayurvedic. Case Studies and Group Discussion 1. Case study presentation: students present Anorectal Abscesses or Bhagandara cases. 2. Group discussion: diagnosis, management, and complications. 3. Problem-based learning: students develop treatment plans. Practical and Clinical Sessions 1. Clinical examination: students practice examining patients with Anorectal Abscesses or Bhagandara. 2. Surgical demonstration: observation of abscess drainage or fistulotomy procedures. 3. Radiology session: interpretation of imaging studies (e.g., MRI, CT scans). Ayurvedic Perspective 1. Lecture: Ayurvedic perspective on Anorectal Abscesses (Guda Vidradhi) and Bhagandara. 2. Discussion: Ayurvedic management options (e.g., Kshar Sutra, herbal remedies). 3. Case study presentation: Ayurvedic management of Anorectal Abscesses or Bhagandara. Interactive and Online Sessions 1. Online lecture: expert discussion on Anorectal Abscesses and Bhagandara management. 2. Interactive quiz: assessment of knowledge. 3. Virtual patient simulation: students practice diagnosing and managing Anorectal Abscesses and Bhagandara.

NLHT 40.3	Examination of Fissure in Ano (Parikartika)	**Activities:** Lecture and Discussion 1. Etiopathogenesis and classification of Fissure-in-Ano. 2. Clinical features: symptoms, signs, and stages. 3. Investigations: diagnostic criteria and modalities (e.g., anoscopy, MRI). Case Studies and Group Discussion 1. Case study presentation: students present Fissure-in-Ano cases. 2. Group discussion: diagnosis, management, and complications. 3. Problem-based learning: students develop treatment plans. Practical and Clinical Sessions 1. Clinical examination: students practice examining patients with Fissure-in-Ano. 2. Proctoscopy demonstration: observation of fissure visualization. 3. Radiology session: interpretation of imaging studies (e.g., MRI, CT scans). Interactive and Online Sessions 1. Online lecture: expert discussion on Fissure-in-Ano management. 2. Interactive quiz: assessment of knowledge. 3. Virtual patient simulation: students practice diagnosing and managing Fissure-in-Ano.
NLHT 40.4	Examination of Pilonidal Sinus, Proctitis, Pruritis Ani & Injuries of Anorectal region	Pilonidal Sinus Activities: 1. Lecture: definition, etiology, and pathophysiology. 2. Case study presentation: students present Pilonidal Sinus cases. 3. Group discussion: diagnosis, management, and complications. 4. Surgical demonstration: observation of Pilonidal Sinus excision. Proctitis Activities: 1. Lecture: definition, etiology, and pathophysiology. 2. Case study presentation: students present Proctitis cases. 3. Group discussion: diagnosis, management, and complications.

		4. Proctoscopy demonstration: observation of Proctitis visualization. Pruritis Ani Activities: 1. Lecture: definition, etiology, and pathophysiology. 2. Case study presentation: students present Pruritis Ani cases. 3. Group discussion: diagnosis, management, and complications. 4. Dermatology session: examination of Pruritis Ani specimens. Injuries of Anorectal Region Activities: 1. Lecture: types and causes of anorectal injuries. 2. Case study presentation: students present anorectal injury cases. 3. Group discussion: diagnosis, management, and complications. 4. Surgical demonstration: observation of anorectal injury repair.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 40.1	Examination of a Sinus or Fistula and Hands-on training on Simulators	**Steps:** Patient History 1. Gather History: Ask about the onset, duration, and nature of symptoms. Inquire about discharge, pain, and any prior surgeries or infections. 2. Medical History: Document past medical history, including any relevant systemic conditions like Crohn's disease, tuberculosis, or diabetes. Physical Examination

		1. Inspection: • Examine the area for visible signs of a sinus or fistula, such as an external opening, discharge, or skin changes. • Note the location, size, and appearance of any external openings. 2. Palpation: • Gently palpate the surrounding tissue to assess for tenderness, induration, or signs of infection. • Determine the tract's direction by feeling induration along the pathway. 3. Probing: • Use a sterile malleable probe to gently explore the sinus or fistula tract. • Note the depth, direction, and any resistance or obstructions. 4. Imaging (if available): • Consider using MRI, or fistulography to visualize the tract and assess its extent and connections. Supplementary Assessments 1. Special Tests: Consider tests for underlying conditions that may contribute to sinus or fistula formation, such as inflammatory markers or tuberculosis tests. Hands-on Training with Simulators 1. Simulator Setup: Ensure the simulator accurately represents the anatomy and pathology of a sinus or fistula. 2. Practice Sessions: Allow participants to practice inspection, palpation, and probing techniques on the simulator. 3. Feedback and Debriefing: Provide constructive feedback and conduct a debriefing session to discuss findings and areas for improvement.
NLHP 40.2	Examination of Rectal case and Hands-on training	**Steps:**

	on Simulators	Patient History 1. Gather History: Ask about symptoms such as pain, bleeding, changes in bowel habits, and discharge. Inquire about duration, onset, and any associated symptoms like weight loss or systemic issues. 2. Medical History: Document past medical history, including any gastrointestinal conditions, surgeries, medications, and family history of colorectal diseases. Physical Examination 1. Inspection: • Observe the perianal area for visible abnormalities such as skin tags, fissures, hemorrhoids, or external masses. • Look for signs of inflammation, discharge, or bleeding. 2. Digital Rectal Examination (DRE): • Preparation: Explain the procedure to the patient, ensuring privacy and comfort. Use gloves and lubrication. • Technique: Gently insert a lubricated, gloved finger into the rectum. Assess for tenderness, masses, and the tone of the anal sphincter. Feel for any abnormalities within the rectal wall. • Note Findings: Document findings such as masses, tenderness, and stool characteristics (e.g., blood, mucus). Supplementary Assessments 1. Proctoscopy or Anoscopy: If available, use a proctoscope or anoscope to visualize the rectal mucosa and identify any lesions or abnormalities. 2. Laboratory Tests: Collect stool samples for occult blood testing and culture if indicated.

		3. Imaging: Consider ordering imaging studies such as an abdominal X-ray, CT scan, or MRI if further evaluation is needed. Hands-on Training with Simulators 1. Simulator Setup: Ensure the simulator accurately represents rectal anatomy and pathology. 2. Practice Sessions: Allow participants to practice the digital rectal examination and use of proctoscopy or anoscopy on the simulator. 3. Feedback and Debriefing: Provide constructive feedback and conduct a debriefing session to discuss findings and areas for improvement.

Topic 41 Udarabhighata (Abdominal Injuries) (LH :1 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO4, CO6	Explain abdominal injuries and their management	CK	NK	K	L&PPT ,L&GD, L	T-CS,DOPS,PP-Practical,DOPS, VV-Viva	F&S	III	-	LH
CO1, CO3, CO4, CO6	Demonstrate the skills to conduct a thorough examination, Diagnosis, and management of Abdominal injuries & Trauma patients and distinguish various types of Abdominal injuries.	PSY-MEC	NK	K	PT,FC,SIM,W,L &PPT	T-OBT,DOPS,T-CS,DOPS,CHK	F&S	III	-	NLHP41.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 41.1	Examination of Abdominal Injuries	**Steps:**

		Initial Assessment 1. Scene Safety: Ensure the environment is safe for both the patient and healthcare providers. 2. Primary Survey: Follow the ABCDE approach (Airway, Breathing, Circulation, Disability, Exposure) to assess and stabilize the patient. 3. Obtain Consent: Explain the procedure to the patient and obtain their consent, if they are conscious and able to provide it. Physical Examination 1. Inspection: Observe the abdomen for signs of injury such as bruising, swelling, open wounds, or deformities. 2. Palpation: Gently palpate the abdomen to identify areas of tenderness, distension, guarding, or rigidity. 3. Percussion: Tap on the abdomen to assess for dullness or tympany, which might indicate internal bleeding or air. 4. Auscultation: Listen to bowel sounds using a stethoscope to detect any abnormalities such as absent bowel sounds, which can suggest peritonitis or intestinal obstruction. Supplementary Assessments 1. Vital Signs Monitoring: Continuously monitor the patient's vital signs (heart rate, respiratory rate, blood pressure, oxygen saturation) to detect any deterioration. 2. Imaging: If available, order imaging studies such as abdominal X-ray, ultrasound, or CT scan to further evaluate the injuries. 3. Laboratory Tests: Order relevant blood tests (e.g., Complete blood count, electrolytes, liver function tests, S.amylase, S.lipase) based on clinical findings.
Topic 42 Yakrit Vikara (Diseases of Liver) (LH :3 NLHT: 1 NLHP: 10)		

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO4, CO5	Explain the Aetiology, Clinical features, Diagnosis, and Emergency Management of Liver injury.	CK	NK	K	L&GD, L&PPT ,L	QZ ,DEB,INT,P-VIVA,PP-Practical	F&S	III	-	LH
CO1, CO5	Explain the Aetiology, Clinical features, Diagnosis, and Management of Hydatid Cyst and Liver Abscess	CK	DK	K	L,L&PPT	T-CS,VV-Viva,INT,PP-Practical, P-CASE	F&S	III	-	LH
CO1, CO4, CO5	Explain the Aetiology, Clinical features, Diagnosis, and Management of Hepatomegaly and Carcinoma of the Liver	CK	NK	K	L,L&PPT	PP-Practical,DEB,INT, T-CS,VV-Viva	F&S	III	-	LH
CO1, CO2, CO4	Demonstrate the skills to learn the Surgical Anatomy of the Liver and conduct a thorough examination, Diagnosis, and Management of Acute Liver Injuries.	CK	MK	K	TUT,L_VC,L&PPT ,CBL,L&GD	P-EXAM,QZ ,VV-Viva,PP-Practical, COM	F&S	III	-	NLHP42.1
CO1, CO2, CO4	Demonstrate the skills to diagnose and manage surgical jaundice and explain the use of Endoscopic Retrograde Cholangiopancreatography (ERCP) in the evaluation and treatment of Biliary Obstructions.	CC	NK	K	L&PPT ,CBL,CD,L&GD,D	QZ ,VV-Viva,P-EXAM,CBA,PP-Practical	F&S	III	-	NLHP42.2
CO1, CO3, CO6	Explain the pathophysiology, Risk factors, clinical features, diagnostic criteria, management strategies, and treatment options of Acute Liver Injury (ALI).	CC	DK	K	L&GD, FC,TBL ,BL,D-M	CBA,PP-Practical,P-EXAM,DEB, PUZ	F&S	III	-	NLHT42.1
CO1,	Demonstrate the skills to examine and diagnose Hepatomegaly an	CAP	MK	K	PER,D-	QZ ,OSCE,	F&S	III	-	NLHP42.3

CO2, CO4	d the procedure for Percutaneous Aspiration, Injection, and Respiration (PAIR) in treating liver abscesses.				BED,L&GD,CD,FC	CL-PR,SBA,PRN				
CO1, CO2, CO4, CO6	Demonstrate the skills to perform Paracentesis safely and effectively in the management of Ascites and the steps involved in the procedure using patients or simulators.	PSY-GUD	NK	K	SDL,D-M,DIS,TUT,L_VC	P-CASE,VV-Viva, C-VC,P-ID,PP-Practical	F&S	III	-	NLHP42.4
CO1, CO2, CO4	Discuss surgical management options for Portal Hypertension and the steps involved in various surgical procedures.	CC	NK	K	CBL,CD,SDL,PT,D	P-REC,P-CASE,INT,PRN,P-EXAM	F&S	III	-	NLHP42.5

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 42.1	Examination of the case of Acute Liver Injury	**Activities:** Lecture and Discussion 1. Introduction to ALI: definition, epidemiology, and pathophysiology. 2. Causes and risk factors: toxins, medications, viruses, and metabolic disorders. 3. Clinical features and diagnostic criteria: symptoms, signs, and laboratory tests. Case Study Presentation 1. Students present ALI case studies. 2. Group discussion: diagnosis, management, and complications. 3. Problem-based learning: students develop treatment plans. Practical and Clinical Sessions 1. Clinical examination: students practice examining patients with ALI. 2. Laboratory session: interpretation of liver function tests (LFTs) and other diagnostic tests. 3. Imaging session: interpretation of ultrasound, CT, or MRI scans. Interactive and Online Sessions

		1. Online lecture: expert discussion on ALI management. 2. Interactive quiz: assessment of knowledge. 3. Virtual patient simulation: students practice diagnosing and managing ALI. Hands-on Activities 1. Simulation-based training: students practice managing ALI scenarios. 2. Pathology session: examination of liver biopsy specimens. 3. Patient education: students develop patient education materials. Small Group Discussions 1. Discussion of ALI-related topics: - Toxin-induced liver injury - Viral hepatitis - Autoimmune hepatitis - Liver transplantation 2. Case-based discussions: students analyze ALI cases. 3. Journal club: discussion of recent research articles.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 42.1	Demonstration of Surgical anatomy of the liver, Acute Liver Injury in patients, or simulator.	**Steps:** Surgical Anatomy of the Liver 1. Anatomical Overview: • Liver Lobes: Right lobe, left lobe, caudate lobe, and quadrate lobe. • Surfaces: Diaphragmatic surface (superior) and visceral surface (inferior). • Ligaments: Falciform ligament, coronary ligaments, and triangular ligaments. • Blood Supply: Hepatic artery, portal vein, and hepatic veins. • Biliary System: Bile ducts, gallbladder, and cystic duct.

		Examination and Management of Acute Liver Injury 1. Initial Assessment: • History Taking: Gather information on the mechanism of injury, symptoms like pain and jaundice, and any pre-existing liver conditions. • Physical Examination: Inspect for signs of trauma, palpate for tenderness and hepatomegaly, and assess for peritoneal signs. 2. Diagnostic Tests: • Laboratory Tests: Liver function tests, Complete blood count, coagulation profile, and Serum amylase/ S.lipase. • Imaging Studies: Ultrasound, CT scan, or MRI to evaluate the extent of injury. 3. Management Techniques: • NonOperative Management: Indications for conservative management, monitoring protocols, and follow-up imaging. • Surgical Intervention: Indications for surgery, types of surgical procedures (e.g., repair, resection), and post-operative care.
NLHP 42.2	Demonstration of Diagnosis & Management of Surgical Jaundice with ERCP on patients /simulator.	**Steps:** Patient History 1. Gather History: Ask about the onset, duration, and nature of jaundice. Inquire about associated symptoms such as pruritus, dark urine, pale stools, and abdominal pain. 2. Medical History: Document past medical history, including any liver diseases, gallstones, pancreatitis, or previous surgeries. Physical Examination 1. Inspection: Observe the skin and sclera for jaundice. Look for signs of liver disease such as spider angiomas, palmar erythema, and ascites.

		2. Palpation: Check for hepatomegaly and tenderness in the right upper quadrant. 3. Auscultation: Listen for bowel sounds and any abnormal vascular sounds. Diagnostic Tests 1. Laboratory Tests: Order liver function tests, complete blood count, and coagulation profile. 2. Imaging Studies: Perform ultrasound, CT scan, or MRI, or ERCP to evaluate the biliary tree and liver.
NLHP 42.3	Examination of Hepatomegaly & PAIR in Liver Abscess and Hands-on Practice.	**Steps:** 1. Patient History: • Gather history of symptoms such as abdominal pain, fatigue, jaundice, and weight loss. • Inquire about past medical history, including liver disease, infections, and alcohol consumption. 2. Physical Examination: • Inspection: Observe the abdomen for distension and any visible masses. • Palpation: ◦ Position the patient supine with knees slightly bent. ◦ Start palpation from the right iliac fossa moving towards the right costal margin. ◦ Note the size, surface, consistency, and tenderness of the liver. • Percussion: Percuss the liver borders to determine its span and confirm hepatomegaly. PAIR in Liver Abscess 1. Preparation: • Explain the procedure to the patient and obtain informed consent.

		• Ensure aseptic technique and gather necessary equipment (e.g., needles, syringes, antiseptic solution). 2. Procedure: • Ultrasound Guidance: Use ultrasound to locate the abscess. • Aspiration: ◦ Insert the needle into the abscess cavity under ultrasound guidance. ◦ Aspirate the abscess content and send it for microbiological analysis. • Injection: Inject a scolicidal agent (e.g., hypertonic saline) into the abscess cavity. • Re-aspiration: Re-aspirate the contents to remove the injected agent and debris. 3. Post-Procedure Care: • Monitor the patient for any complications such as bleeding or infection. • Follow up with repeat ultrasound to assess the resolution of the abscess.
NLHP 42.4	Demonstration of Paracentesis inpatient or simulator.	**Steps:** Patient History and Assessment 1. Gather History: Ask about symptoms such as abdominal distension, pain, and shortness of breath. Enquire about past medical history including liver disease, heart failure, and cancer. 2. Physical Examination: Assess for signs of ascites, including abdominal distension, fluid wave, and shifting dullness. Procedure Preparation 1. Consent: Explain the procedure to the patient and obtain informed consent. 2. Preparation: Ensure aseptic technique, and gather necessary equipment (e.g., sterile gloves, antiseptic solution, needles, syringes, collection bottles). 3. Positioning: Position the patient comfortably, usually in a semi-upright position to allow fluid to accumulate in the lower abdomen. Performing Paracentesis

		1. Site Selection: • Identify the site of fluid accumulation, typically in the lower quadrant. • Use ultrasound guidance if available to minimize the risk of complications. 2. Sterilization: Clean the selected site with an antiseptic solution and drape the area with sterile drapes. 3. Local Anesthesia: Administer local anesthesia to numb the area. 4. Needle Insertion: • Insert the needle perpendicular to the skin and advance it slowly while aspirating until fluid is obtained. • Attach a syringe to collect the fluid for diagnostic analysis or therapeutic removal. 5. Fluid Collection: Collect fluid in sterile containers for laboratory analysis (e.g., cell count, protein, culture). 6. Post-Procedure Care: • Remove the needle and apply a sterile dressing to the site. • Monitor the patient for any complications such as bleeding or infection. • Send collected fluid for laboratory analysis.
NLHP 42.5	Surgical management of Portal Hypertension	**Steps:** Educational Content: Prepare detailed scripts and visual aids to explain the surgical steps, indications, and post-operative care. A thorough understanding of the surgical management of portal hypertension is essential for effective treatment. Videographic demonstrations and hands-on practice with simulators enhance proficiency and confidence in performing these complex procedures. Regular practice and staying updated with the latest surgical techniques are crucial for successful outcomes in patients with portal hypertensio**n**

Topic 43 Pittashaya Vikara (Diseases of Gall Bladder) (LH :2 NLHT: 1 NLHP: 8)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1,	Discuss the gross & microscopic anatomy and histology of the	CC	MK	K	L_VC,S	P-ID,360D,	F&S	III	V-RS,V-	NLHT43.1

CO4, CO5	Gall Bladder with its anatomical relationships and landmarks, and congenital anomalies, diagnostic criteria, surgical procedures, complications, and post-operative care in Gall Bladder Diseases. Explain the role of laboratory tests, Liver function tests (LFTs), other relevant investigations with their Interpretation, and imaging studies in gallbladder disease.				IM,CBL ,DIS,L &GD	PP-Practica l,T-CS,INT			RS	
CO1, CO4, CO5	Explain Aetiopathogenesis, Classification, Clinical Features, Investigations, Diagnosis, Complications, and management of Choledochal Cyst & Congenital Biliary Atresia	CC	DK	K	L,L&PP T	P-VIVA,V V-Viva,PP-Practical,T-CS,PRN	F&S	III	-	LH
CO1, CO2, CO3, CO6	Describe Aetiopathogenesis, Classification, Clinical Features, Investigations, Diagnosis, Complications, and management of Cholecystitis (Pittashaya Shotha) and Choledocholithiasis	CC	MK	K	L&PPT ,L	Log book,P -PRF,PRN, OSCE,T-CS	F&S	III	-	LH
CO1, CO2, CO4, CO6	Demonstrate skills in taking patient history and performing physic al examinations, diagnosis, treatment and communication skills for cholecystitis and Choledocho lithiasis	CK	DK	K	CD,PER ,PT,D,R P	T-OBT,OS CE,T-CS,O SPE,VV-Viva	F&S	III	-	NLHP43.1
CO1, CO2, CO4	Explain the concept and the diagnostic and therapeutic techniques of Magnetic Resonance Cholangiopancreatography (MRCP) and Endoscopic Retrograde Cholangiopancreatography (ERCP) in Biliary and Pancreatic Disorders	CK	NK	K	L&PPT ,FC,L& GD,BL, PT	DOAP,OSP E,P-VIVA, T-OBT,PP-Practical	F&S	III	-	NLHP43.2
CO1, CO2, CO4	Demonstrate skills in taking patient history, diagnostic and comm unication skills, and performing physical examinations for cholecystitis.	PSY-SET	DK	K	PER,L& GD,L& PPT ,C D,L_VC	P-VIVA,P-CASE,SP,T-OBT,P-MOD	F&S	III	-	NLHP43.3
CO1, CO2,	Demonstrate skills in clinical presentation, diagnostic techniques, etc. through various interactive methods for Gall Bladder cancer	PSY-GUD	DK	K	D,PT,IB L,CD,L	P-VIVA,P-EXAM,OS	F&S	III	-	NLHP43.4

CO4	fostering effective communication and teamwork skills in a clinical setting.				&PPT	CE,CBA,P-REC					

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 43.1	Surgical anatomy of Gall Bladder, congenital anomalies of Gall Bladder & Basic Investigations	**Surgical anatomy of Gall Bladder** Activities: 1. Lecture: gross anatomy and microscopic anatomy. 2. Dissection demonstration: gallbladder dissection. 3. Histology lab: examination of gallbladder tissue. 4. Case study presentation: students present gallbladder surgery cases. 5. Interactive session: 3D visualization of gallbladder anatomy. **Congenital Anomalies of the Gallbladder** Activities: 1. Lecture: classification and types of congenital anomalies. 2. Case study presentation: students present congenital anomaly cases. 3. Radiology session: interpretation of imaging studies (e.g., ultrasound, CT). 4. Surgical demonstration: observation of surgical correction. 5. Group discussion: management and post-operative care. **Basic Investigations** Activities: 1. Lecture: laboratory tests and LFTs. 2. Case study presentation: students interpret investigation results. 3. Radiology session: interpretation of imaging studies. 4. Group discussion: diagnostic criteria and investigation protocols. 5. Practical session: students practice ordering and interpreting investigations

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 43.1	Cholecystitis and Choledocholithiasis Examination	**Steps:** Group Discussion 1. Topic Introduction: Start with a brief overview of cholecystitis, its causes, and clinical presentation. 2. Case Presentation: Present a typical case scenario of a patient with cholecystitis. Include details such as patient demographics, symptoms, and medical history. 3. Discussion Questions: • What are the common symptoms of cholecystitis? • What differential diagnoses should be considered? • What are the key elements in the patient's history that suggest cholecystitis? 4. Interactive Discussion: Encourage participants to share their thoughts and experiences. Facilitate a guided discussion to explore various aspects of diagnosis and management. Role Play 1. Scenario Setup: Create role play scenarios where participants take turns playing the roles of the patient, doctor, and observer. 2. Patient Role: The "patient" presents with symptoms suggestive of cholecystitis (e.g., right upper quadrant pain, nausea, fever). 3. Doctor Role: The "doctor" conducts a thorough history taking and physical examination, focusing on signs and symptoms of cholecystitis. 4. Observer Role: The "observer" provides feedback on the interaction, focusing on communication skills, examination techniques, and clinical reasoning. 5. Debriefing: Conduct a debriefing session to discuss the role play experience, highlighting strengths and areas for improvement.

		Case Taking and Examination 1. Patient History: • Gather a detailed history of the present illness, including the onset, duration, and nature of pain. • Ask about associated symptoms such as nausea, vomiting, fever, and changes in bowel habits. • Document past medical history, including any previous episodes of similar pain, surgeries, and family history of gallbladder disease. 2. Physical Examination: • Inspection: Observe the abdomen for any visible signs such as distension or jaundice. • Palpation: Perform gentle and then deeper palpation of the abdomen, focusing on the right upper quadrant. Check for Murphy's sign (pain upon palpation of the gallbladder). • Percussion: Percuss the abdomen to identify areas of tenderness or fullness. • Auscultation: Listen for bowel sounds and any abnormalities.
NLHP 43.2	MRCP & ERCP Demonstration	**Steps:** MRCP (Magnetic Resonance Cholangiopancreatography) 1. Patient Preparation: • History and Consent: Explain the procedure to the patient, obtain informed consent, and document relevant medical history. • Fasting: Ensure the patient fasts for 4-6 hours before the procedure. • Positioning: Position the patient supine on the MRI table. 2. Procedure – By Radiologist ERCP (Endoscopic Retrograde Cholangiopancreatography)

		1. Patient Preparation: • History and Consent: Explain the procedure to the patient, obtain informed consent, and document relevant medical history. • Fasting: Ensure the patient fasts for 6-8 hours before the procedure. • Sedation: Administer appropriate sedation and monitor the patient's vital signs. 2. Procedure – By Expert Videographic Demonstration Educational Content: Prepare scripts and visual aids to explain the indications, steps, and potential complications of MRCP and ERCP. Hands-on Training with Simulators 1. Simulator Setup: Ensure the simulator accurately represents the anatomy and pathology of the biliary and pancreatic systems. 2. Practice Sessions: Allow participants to practice MRCP and ERCP techniques on the simulator. 3. Feedback and Debriefing: Provide constructive feedback and conduct a debriefing session to discuss findings and areas for improvement.
NLHP 43.3	Case taking and examination of cholecystitis on the patients.	**Steps:** Group Discussion 1. Topic Introduction: Start with a brief overview of cholecystitis, its causes, and clinical presentation. 2. Case Presentation: Present a typical case scenario of a patient with cholecystitis. Include details such as patient demographics, symptoms, and medical history. 3. Discussion Questions: • What are the common symptoms of cholecystitis? • What differential diagnoses should be considered? • What are the key elements in the patient's history that suggest cholecystitis?

4. Interactive Discussion: Encourage participants to share their thoughts and experiences. Facilitate a guided discussion to explore various aspects of diagnosis and management.

Role Play

1. Scenario Setup: Create role play scenarios where participants take turns playing the roles of the patient, doctor, and observer.
2. Patient Role: The "patient" presents with symptoms suggestive of cholecystitis (e.g., right upper quadrant pain, nausea, fever).
3. Doctor Role: The "doctor" conducts a thorough history taking and physical examination, focusing on signs and symptoms of cholecystitis.
4. Observer Role: The "observer" provides feedback on the interaction, focusing on communication skills, examination techniques, and clinical reasoning.
5. Debriefing: Conduct a debriefing session to discuss the role play experience, highlighting strengths and areas for improvement.

Case Taking and Examination

1. Patient History:
    - Gather a detailed history of the present illness, including the onset, duration, and nature of pain.
    - Ask about associated symptoms such as nausea, vomiting, fever, and changes in bowel habits.
    - Document past medical history, including any previous episodes of similar pain, surgeries, and family history of gallbladder disease.
2. Physical Examination:
    - Inspection: Observe the abdomen for any visible signs such as distension or jaundice.
    - Palpation: Perform gentle and then deeper palpation of the abdomen, focusing on the right upper quadrant. Check for Murphy's sign (pain upon palpation of the

		gallbladder). • Percussion: Percuss the abdomen to identify areas of tenderness or fullness. • Auscultation: Listen for bowel sounds and any abnormalities.
NLHP 43.4	Case presentation of Carcinoma of Gall Bladder	**Steps:** Group Discussion 1. Topic Introduction: Start with an overview of gallbladder cancer, its epidemiology, risk factors, and clinical presentation. 2. Case Scenario: Present a typical case of a patient with suspected gallbladder cancer, including history, symptoms, and initial findings. 3. Discussion Questions: • What are the common symptoms and risk factors for gallbladder cancer? • What diagnostic tests are essential for confirming the diagnosis? • What are the treatment options and their indications? 4. Interactive Discussion: Encourage participants to share their experiences, insights, and questions. Facilitate a guided discussion on the diagnosis and management of gallbladder cancer. Case Presentation 1. Case Preparation: Select a real or simulated case of gallbladder cancer with comprehensive details. 2. Presentation Components: Include patient history, clinical findings, diagnostic workup, treatment plan, and follow-up. 3. Analysis and Discussion: After presenting the case, engage the participants in analyzing the case, discussing differential diagnoses, and evaluating the management plan. Video Demonstration

		1. Video Commentary: Provide a detailed commentary on each video, explaining the procedure, its indications, and potential complications. 2. Interactive Viewing: Encourage participants to ask questions and discuss the videos in real time. Role Play 1. Scenario Setup: Create role-play scenarios where participants take turns playing the roles of the patient, doctor, and family member. 2. Patient Role: The "patient" presents with symptoms suggestive of gallbladder cancer. 3. Doctor Role: The "doctor" conducts a thorough history-taking and physical examination, explains the diagnosis and treatment options, and addresses the patient's and family's concerns. 4. Observer Role: The "observer" provides feedback on the interaction, focusing on communication skills, empathy, and clinical reasoning. 5. Debriefing: Conduct a debriefing session to discuss the role-play experience, highlighting strengths and areas for improvement.

Topic 44 Agnyashaya Vikara (Diseases of Pancreas) (LH :3 NLHT: 1 NLHP: 6)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO4	Explain the classification and types of congenital anomalies of the Pancreas with their clinical presentation, diagnosis, management options and surgical interventions, complications, and Post-operative care	CC	MK	K	TUT,CD,PT,L&PPT,CBL	PRN,PP-Practical,P-PRF,P-CASE,T-CS	F&S	III	V-RS,V-KS,V-RS	NLHT44.1
CO1, CO5, CO6	Enumerate Aetiopathogenesis, Classification, Clinical Features, Investigations, Diagnosis & Management of Acute Pancreatitis, Chronic & Chronic relapsing pancreatitis & its Management.	CK	MK	K	L,L&PPT	Log book,CL-PR, C-VC,T-CS,P-VIVA	F&S	III	-	LH
CO1,	Describe Cysts of Pancreas & Pseudocyst of Pancreas & its	CC	NK	K	L,L_VC	T-CS,P-EX	F&S	III	-	LH

CO2, CO4	Management.				,L&PPT	AM,PP-Practical,P-VIVA,PRN				
CO1, CO3, CO5	Explain Cancer of the Pancreas & its Management, Insulinoma & Zollinger Ellison Syndrome.	CC	NK	K	L_VC,L ,L&PPT	VV-Viva,P-EXAM,PP-Practical,T-CS,P-VIVA	F&S	III	-	LH
CO1, CO2, CO4	Demonstrate skills in diagnosing and managing Pancreatitis, along with the clinical presentation, diagnostic techniques, and tre atment options.	PSY-GUD	DK	K	L&PPT ,PBL,PER,L,RP	PM,INT,VV-Viva,OSCE,PP-Practical	F&S	III	-	NLHP44.1
CO1, CO2, CO4	Demonstrate skills to identify, diagnose, and manage Pseudo-Pancreatic Cysts.	PSY-GUD	NK	K	DIS,PBL,L&PPT ,D,PT	P-VIVA,P-EXAM,INT ,PRN,DEB	F&S	III	-	NLHP44.2
CO1, CO2, CO4, CO5	Demonstrate skills in diagnosing and managing Pancreatic Neoplasms with its surgical techniques and treatment options.	CK	NK	K	D-BED, L&GD, PT,L&PPT ,TBL	T-CS,P-EXAM,PP-Practical,VV-Viva	F&S	III	-	NLHP44.3

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 44.1	Surgical Anatomy & physiology, Congenital Anomalies of Pancreas	**Activities:** 1. Lecture: gross anatomy and microscopic anatomy. 2. Dissection demonstration: pancreatic dissection. 3. Histology lab: examination of pancreatic tissue. 4. Case study presentation: students present pancreatic surgery cases. 5. Interactive session: 3D visualization of pancreatic anatomy.

		6. Lecture: classification and types of congenital anomalies. 7. Case study presentation: students present congenital anomaly cases. 8. Radiology session: interpretation of imaging studies (e.g., CT, MRI). 9. Surgical demonstration: observation of surgical correction. 10. Group discussion: management and post-operative care.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 44.1	Case taking of Pancreatitis with effective communication skills	**Steps:** Group Discussion 1. Topic Introduction: Start with an overview of pancreatitis, its types (acute and chronic), causes, and clinical presentation. 2. Case Scenario: Present a typical case of a patient with pancreatitis, including history, symptoms, and initial findings. 3. Discussion Questions: • What are the common symptoms and risk factors for pancreatitis? • What diagnostic tests are essential for confirming the diagnosis? • What are the treatment options and their indications? 4. Interactive Discussion: Encourage participants to share their experiences, insights, and questions. Facilitate a guided discussion on the diagnosis and management of pancreatitis. Case Presentation 1. Case Preparation: Select a real or simulated case of pancreatitis with comprehensive details. 2. Presentation Components: Include patient history, clinical findings, diagnostic workup,

		treatment plan, and follow-up. 3. Analysis and Discussion: After presenting the case, engage the participants in analyzing the case, discussing differential diagnoses, and evaluating the management plan. Video Demonstration 1. Video Commentary: Provide a detailed commentary on each video, explaining the procedure, its indications, and potential complications. 2. Interactive Viewing: Encourage participants to ask questions and discuss the videos in real time. Role Play 1. Scenario Setup: Create role-play scenarios where participants take turns playing the roles of the patient, doctor, and family member. 2. Debriefing: Conduct a debriefing session to discuss the role-play experience, highlighting strengths and areas for improvement.
NLHP 44.2	Demonstration of Pseudo Pancreatic cyst on patient or simulator.	**Steps:** Patient History and Assessment 1. Gather History: Ask about symptoms such as abdominal pain, nausea, vomiting, and a history of pancreatitis. Document the duration and progression of symptoms. 2. Physical Examination: Observe for signs of abdominal distension, tenderness, and palpable masses. Perform a thorough examination to assess for complications. Diagnostic Tests

		1. Imaging Studies: Perform ultrasound, CT scan, or MRI to visualize the pseudo-pancreatic cyst and assess its size, location, and relation to surrounding structures. 2. Laboratory Tests: Order relevant tests such as Serum Amylase, S.lipase, and liver function tests to assess the underlying condition. Video Demonstration Educational Content: Provide a detailed commentary on each video, explaining the indications, steps, and potential complications. Role Play 1. Scenario Setup: Create role-play scenarios where participants take turns playing the roles of the patient, doctor, and family member. 2. Debriefing: Conduct a debriefing session to discuss the role-play experience, highlighting strengths and areas for improvement.
NLHP 44.3	Case presentation of Neoplasm of Pancreas and its management.	**Steps:** Group Discussion 1. Topic Introduction: Begin with an overview of pancreatic neoplasms, including types (e.g., adenocarcinoma, neuroendocrine tumors), risk factors, and clinical presentation. 2. Case Scenario: Present a typical case of a patient with a pancreatic neoplasm, including history, symptoms, and initial findings. 3. Discussion Questions: • What are the common symptoms and risk factors for pancreatic neoplasms? • What diagnostic tests are essential for confirming the diagnosis? • What are the treatment options and their indications? 4. Interactive Discussion: Encourage participants to share their experiences, insights, and questions. Facilitate a guided discussion on the diagnosis and management of pancreatic neoplasms.

		Case Presentation 1. Case Preparation: Select a real or simulated case of a pancreatic neoplasm with comprehensive details. 2. Presentation Components: Include patient history, clinical findings, diagnostic workup, treatment plan, and follow-up. 3. Analysis and Discussion: After presenting the case, engage the participants in analyzing the case, discussing differential diagnoses, and evaluating the management plan. Video Demonstration 1. Video Commentary: Provide a detailed commentary on each video, explaining the procedure, its indications, and potential complications. 2. Interactive Viewing: Encourage participants to ask questions and discuss the videos in real time. Role Play 1. Scenario Setup: Create role- play scenarios where participants take turns playing the roles of the patient, doctor, and family member. 2. Debriefing: Conduct a debriefing session to discuss the role-play experience, highlighting strengths and areas for improvement.

Topic 45 Pleeha Vikara (Diseases of Spleen) (LH :3 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2,	Define Aetiopathogenesis, Classification, Investigations, Clinical Features and Management of Spleen Rupture.	CK	NK	K	L,L&PPT	DEB,PP-Practical,P-	F&S	III	-	LH

CO3, CO6						VIVA, C-VC,T-CS				
CO1, CO2, CO6	Enumerate the Indications, Complications of Hypersplenism & Benefits of Spleenectomy.	CK	NK	K	L&PPT ,L	P-VIVA,P-EXAM,PP-Practical,PRN,Log book	F&S	III	-	LH
CO1, CO2, CO5	Describe Congenital Anomalies, Clinical Features, and Management of Splenomegaly (Pleeha Vridhi).	CK	DK	K	L&PPT ,L	VV-Viva,P-EXAM,PP-Practical,INT,Log book	F&S	III	-	LH
CO1, CO2, CO4, CO6	Discuss the clinical presentation, and implications of Splenic rupture and Splenomegaly, with their diagnostic approach, and Management strategies.	CC	NK	K	PT,PER ,DIS,L &GD,CD	C-VC,QZ , P-EXAM,VV-Viva,PRN	F&S	III	-	NLHP45.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 45.1	Case presentation of the Splenic Rupture & Splenomegaly on the patients or simulator.	**Steps** Class Discussion/Case Presentation Introduction: Briefly introduce splenic rupture and splenomegaly. State the objectives of the discussion/presentation.

		Case Descriptions: Splenic Rupture: Present a case of a patient with acute abdominal pain, history of trauma, and signs of shock. Splenomegaly: Describe a patient with gradual onset of abdominal discomfort, early satiety, and a palpable mass in the left upper quadrant. Diagnostic Approach: Discuss the diagnostic steps for each condition, including history, physical examination, lab tests, and imaging studies. Highlight the differences in diagnostic approaches for splenic rupture and splenomegaly. Management Strategies: Splenic Rupture: Emphasize the importance of immediate stabilization, fluid resuscitation, and possible surgical intervention (e.g., splenectomy). Splenomegaly: Focus on identifying and treating the underlying cause (e.g., infection, hematologic disorder) and managing symptoms. Q&A Session: Encourage questions and discussions from the audience. Clarify any doubts and provide additional insights. Video Demonstration/Role Play Preparation: Prepare scripts or scenarios for each condition. Assign roles to participants (e.g., patient, doctor, nurse). Demonstration: Splenic Rupture: Show an emergency room scenario with diagnosis and initial treatment of a patient with acute abdominal pain and shock. Splenomegaly: Demonstrate a patient consultation, discussing symptoms, examination findings, and management plans with the doctor. Debriefing: Discuss the key points from each demonstration. Highlight the learning objectives and take-home messages.

Topic 46 Vrikka Evam Mutravahini Vikara (Diseases of Kidney and Ureters) (LH :5 NLHT: 4 NLHP: 2)										
A3	**B3**	**C3**	**D3**	**E3**	**F3**	**G3**	**H3**	**I3**	**K3**	**L3**
CO1, CO2	Describe the Surgical Anatomy and physiology of the Urogenital System and enumerate Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications, and Management of Congenital anomalies of Kidney & Ureter, Horse Shoe kidney & Polycystic kidney.	CK	DK	K	SIM,D-M	P-VIVA,SP,P-MOD	F&S	III	V-RS,V-RS	NLHT46.1
CO1, CO3, CO5	Illustrate the Aetiopathogenesis, Causes, Characteristics, Clinical signs and symptoms, and Development of Congenital Kidney and Ureter anomalies and Polycystic Kidney Disease with their management and Complications.	CAN	MK	K	BL,CBL,TUT,DIS,SDL	M-CHT,VV-Viva,T-CS, C-VC,CL-PR	F&S	III	-	NLHT46.2
CO1, CO3, CO5	Elaborate on the Causes and Mechanisms of Kidney and Ureter injuries with their Clinical Features, Diagnostic Techniques, Management Plans, and Complications.	CC	MK	K	PER,TUT,D,PSM,RP	CL-PR,P-VIVA,P-PS,SP, C-VC	F&S	III	-	NLHT46.3
CO1, CO3, CO5	Define the Aetiopathogenesis, Classification, Clinical Features & Management of Hydronephrosis.	CK	MK	K	PL,LRI,L,L&PPT	P-VIVA,PRN,CL-PR,P-EXAM,QZ	F&S	III	-	LH
CO1, CO3, CO5	Define the Aetiopathogenesis, Classification, Clinical Features & Management of Non-Specific Infection of the Kidneys- Acute & Chronic Pyelonephritis.	CK	MK	K	L,L&GD,L_VC,L&PPT	PRN,DEB,VV-Viva, C-VC,M-CHT	F&S	III	-	LH
CO1, CO3, CO5	Describe the Perinephric Abscess & Renal Abscess.	CC	MK	K	L_VC,L&PPT ,L,L&GD,CD	PRN,VV-Viva,P-VIVA,T-CS,PP-Practical	F&S	III	-	LH

CO1, CO3, CO5	Define Aetiopathogenesis, Types, Clinical Features, Investigations, Complications & Management of Vrikkashmari (Renal Calculus).	CK	MK	K	L&PPT,L,L_VC,L&GD	P-VIVA,SA,PRN,PP-Practical,VV-Viva	F&S	III	-	LH
CO1, CO3, CO5	Elaborate Pathophysiology, Causes, and Development of Ureteral Calculus and its Clinical Features, Diagnostic tools and Imaging studies, Management Plans, and Complications.	CC	MK	K	SIM,CBL,PER,TUT,BL	PRN,CL-PR,P-VIVA,P-CASE,P-EXAM	F&S	III	-	NLHT46.4
CO1, CO3, CO5	Define Aetiopathogenesis, Classification, Clinical Features & Management of Tumours of the Kidney.	CC	MK	K	L,L_VC,PER,L&PPT,L&GD	PRN,P-VIVA,P-EXAM,T-CS	F&S	III	-	LH
CO1, CO3, CO5	Discuss the Pathophysiology and Clinical Presentation, Diagnostic approach and Management Strategies of CKD, Perinephric Abscess, and Renal Calculus.	PSY-GUD	MK	K	PSM,PL,TUT,RLE,CBL	VV-Viva,PRN,C-VC,P-VIVA,P-EXAM	F&S	III	-	NLHP46.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 46.1		
NLHT 46.2	Congenital anomalies of Kidney, Ureter & Polycystic Kidney discussion.	**Case Study Analysis**: Review and discuss case studies of patients with congenital kidney and ureter anomalies and polycystic kidney disease. **Diagnostic Techniques Workshop**: Practice using diagnostic tools like ultrasonography, CT, and MRI to identify these anomalies.

		Symptom Simulation: Use simulations to understand and identify the clinical presentations of these conditions.. **Classification Exercises**: Engage in exercises to classify different congenital anomalies of the kidney and ureter. **Complication Scenario Management**: Work through scenarios where students must manage complications arising from these conditions. **Treatment Plan Development**: Create comprehensive management and treatment plans for hypothetical patients. **Group Discussions**: Facilitate discussions on the aetiopathogenesis and clinical features of these conditions.
NLHT 46.3	Demonstration of Injuries to the Kidneys And Ureters.	**Case Study Review**: Analyze and discuss case studies involving kidney and ureter injuries. **Imaging Analysis**: Review and interpret imaging studies of kidney and ureter injuries. **Role-Playing**: Simulate patient interviews and history taking to practice identifying possible causes and symptoms of injuries. **Management Scenarios**: Engage in scenarios to develop and implement management plans for patients with kidney and ureter injuries. **Complication Management**: Discuss and simulate the management of complications arising from these injuries. **Group Discussions**: Facilitate discussions on the mechanisms, diagnosis, and management of kidney and ureter injuries.
NLHT 46.4	Ureteral Stone examination.	**Case Study Analysis**: Review and discuss case studies of patients diagnosed with ureteral stones. **Imaging Interpretation**: Analyze and interpret imaging studies to locate and assess ureteral stones. **Symptom Simulation**: Use simulations to understand and identify the clinical presentation and symptoms of ureteral stones. **Treatment Plan Exercises**: Develop and present comprehensive management and treatment plans for patients with ureteral stones. **Surgical Simulation**: Participate in surgical simulations of procedures such as ureteroscopy and

		lithotripsy. **Complication Management**: Engage in scenarios to identify and manage complications arising from ureteral stones and their treatment. **Group Discussions**: Facilitate discussions on best practices and guidelines for the management of ureteral stones.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 46.1	Case presentation on CKD, Perinephric Abscess & **R**enal Calculus on patients, or simulator.	**Steps** Class Discussion/Case Presentation Introduction: Briefly introduce CKD, perinephric abscess, and renal calculus. State the objectives of the discussion/presentation. Case Descriptions: CKD: Present a case of a patient with gradual decline in kidney function, discussing symptoms such as fatigue, edema, and changes in urine output. Perinephric Abscess: Describe a patient with fever, flank pain, and a history of urinary tract infection. Renal Calculus: Explain a case of a patient with severe flank pain, hematuria, and a history of kidney stones. Diagnostic Approach: Discuss the diagnostic steps for each condition, including history, physical examination, lab tests, and imaging studies. Highlight the differences in diagnostic approaches for each condition. Management Strategies: CKD: Focus on managing underlying causes, controlling blood pressure, and dietary modifications. Perinephric Abscess: Emphasize the importance of antibiotics, drainage, and monitoring for complications. Renal Calculus: Discuss pain management, hydration, and the use of medications or procedures like ESWL or PCNL.

		Q&A Session: Encourage questions and discussions from the audience. Clarify any doubts and provide additional insights. Video Demonstration/Role Play Preparation: Prepare scripts or scenarios for each condition. Assign roles to participants (e.g., patient, doctor, nurse). Demonstration: CKD: Show a patient consultation, discussing symptoms and management plans with the doctor. Perinephric Abscess: Act out an emergency room scenario with diagnosis and initial treatment. Renal Calculus: Demonstrate a patient's experience with acute pain and the steps taken for diagnosis and treatment. Debriefing: Discuss the key points from each demonstration. Highlight the learning objectives and take-home messages.

Topic 47 Mutrashaya Vikara (Diseases of Urinary bladder) (LH :3 NLHT: 2 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO5	Analyze the anatomy, physiology, and histology of the urinary bladder while evaluating congenital anomalies, diagnostic methods, and management strategies.	CAN	MK	K	L&GD, LRI,TUT,PER, CBL	VV-Viva,M-POS,QZ ,M-CHT, C-VC	F&S	III	V-RS,V-KS,V-RS	NLHT47.1
CO1, CO3, CO5	Define the Aetiopathogenesis, Classification, Clinical Features & Management of Cystitis.	CK	MK	K	L&PPT ,L	C-VC,PP-Practical,PM, QZ ,P-VIVA	F&S	III	-	LH
CO1,	Define the Aetiopathogenesis, Classification, Clinical Features &	CK	MK	K	L&PPT	T-CS,P-VI	F&S	III	-	LH

CO3, CO5	Management of Vesicular Calculus.				,L	VA,P-POS, VV-Viva				
CO1, CO3, CO5	Define Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Urinary Bladder Dysfunction (Neurogenic bladder) and Carcinoma of Urinary Bladder.	CK	MK	K	L&PPT ,PL,PrB L,FC,P ER	T-CS,CL-P R,INT,PRN ,O-QZ	F&S	III	-	LH
CO1, CO2, CO3, CO4, CO5, CO6	Demonstrate the Indications and Contraindications, step-by-step process for Suprapubic catheterization, Cystoscopy, PCNL,& ESWL.	PSY-GUD	MK	KH	TUT,PL ,BL,CD, D-BED	DEB,INT,P -EXAM,C HK,Mini-CEX	F&S	III	-	NLHP47.1
CO1, CO3, CO5	Elaborate on the underlying Pathophysiology, Clinical Features, Physical Examination, Management, and Complications of Haematuria and Anuria.	CC	MK	K	DIS,BL, L&GD, TUT,PE R	CL-PR,P-E XAM,P-VI VA,PRN, C-VC	F&S	III	-	NLHT47.2
CO1, CO3, CO5	Identify Aetiopathology, signs and symptoms, and Examination of Urinary System Disorders.	CK	MK	K	PER,TU T,CD,D -BED,SI M	P-VIVA,P-EXAM,CH K,VV-Viva ,Mini-CEX	F&S	III	-	NLHP47.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 47.1	Surgical Anatomy of Bladder & Congenital Anomalies of Blader.	**Anatomy Dissection**: Conduct detailed dissections to study the bladder's anatomical structure. **Histology Lab**: Analyze histological slides of bladder tissue. **Surgical Simulation**: Engage in simulations of common bladder surgeries, focusing on anatomical landmarks and variations. **Clinical Case Discussions**: Discuss clinical cases involving congenital anomalies of the bladder and

		their surgical management. **Group Discussions**: Facilitate group discussions on the anatomical and physiological implications of congenital anomalies.
NLHT 47.2	Demonstration of Haematuria, Anuria -An evaluation.	**Case Study Review**: Analyze and discuss case studies of patients presenting with haematuria and anuria. **Symptom Simulation**: Use simulations to understand and identify the clinical presentation of haematuria and anuria. **Management Plan Development**: Develop management and treatment plans for hypothetical patients. **Complication Scenario Exercises**: Engage in scenarios where students must identify and manage complications arising from haematuria and anuria. **Group Discussions**: Facilitate discussions on differential diagnosis and appropriate diagnostic pathways.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 47.1	Suprapubic catheterization, Cystoscopy, PCNL,& ESWL on patients or simulators.	**Steps** Suprapubic Catheterization **Preparation:** Wash hands and wear sterile gloves. Explain the procedure and obtain consent. Position the patient in the supine position. **Procedure:** Clean and drape the suprapubic area. Administer local anesthesia. Insert the needle above the pubic symphysis into the bladder. Advance the catheter through the needle into the bladder. Secure the catheter and connect to a drainage bag.

Completion:
Ensure proper drainage and monitor for complications.
Cystoscopy
Preparation:
Wash hands and wear sterile gloves.
Explain the procedure and obtain consent.
Position the patient in the lithotomy position.
Procedure:
Clean and drape the perineal area.
Administer local anesthesia.
Insert the cystoscope through the urethra into the bladder.
Visualize the bladder and urethra, checking for any abnormalities.
Perform any necessary interventions (e.g., biopsy).
Completion:
Remove the cystoscope and monitor the patient.
Percutaneous Nephrolithotomy (PCNL)
Preparation:
Wash hands and wear sterile gloves.
Explain the procedure and obtain consent.
Position the patient in the prone position.
Procedure:
Clean and drape the back and flank area.
Administer local or general anesthesia.
Insert the needle into the kidney through the skin.
Dilate the tract and insert a nephroscope.
Fragment and remove kidney stones using appropriate instruments.
Completion:
Ensure all stones are removed and check for complications.
Place a nephrostomy tube for drainage if necessary.
Extracorporeal Shock Wave Lithotripsy (ESWL)

		Preparation: Wash hands and wear sterile gloves. Explain the procedure and obtain consent. Position the patient on the lithotripter table. Procedure: Apply ultrasound gel to the treatment area. Use imaging (X-ray or ultrasound) to locate the kidney stones. Deliver shock waves to break the stones into smaller fragments. Completion: Monitor the patient for complications. Advise the patient on hydration and follow-up imaging.
NLHP 47.2	Examination of Urinary System Disorders.	**Steps** Preparation: Wash hands and wear appropriate PPE. Introduce yourself to the patient and explain the procedure. Obtain consent from the patient. History Taking: Ask about urinary symptoms such as frequency, urgency, dysuria, hematuria, and nocturia. Inquire about past medical history, including urinary tract infections, kidney stones, and any surgeries. Discuss any medications the patient is taking that may affect the urinary system. General Inspection: Observe the patient for signs of discomfort or distress. Check for any visible abdominal swelling or asymmetry. Palpation: Palpate the abdomen for tenderness, masses, or bladder distension. Perform a focused examination of the kidney area (costovertebral angle tenderness). Check for any lower abdominal tenderness or masses that may indicate bladder issues. Percussion: Percuss the bladder area to assess for distension.

		Check for any dullness over the bladder region. Auscultation: Listen to the abdominal area for bowel sounds to rule out any gastrointestinal involvement. Special Tests: Urine Dipstick Test: Test for the presence of blood, protein, glucose, and other abnormalities in the urine. Post-Void Residual (PVR): Measure the amount of urine left in the bladder after urination to assess for incomplete emptying. Documentation: Record the patient's history, symptoms, and examination findings. Note any abnormalities detected during the examination. **Recapitulation:** Thorough Examination: A comprehensive examination of the urinary system is crucial for diagnosing and managing urinary disorders. Patient Communication: Clearly explain the findings and next steps to the patient.

Topic 48 Mutraghata and Mutrakrichra (LH :2 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO2, CO4	Explain the Causes, Diagnosis, Clinical Features & Management of Mutrakrichra.	CC	MK	K	L,L&PPT	PP-Practical,VV-Viva, P-VIVA,T-CS	F&S	III	-	LH
CO1, CO3, CO4	Explain the Causes, Diagnosis, Clinical Features & Management of Mutraghata.	CC	MK	K	L&PPT,L	VV-Viva,P-EXAM,P-VIVA,PRN,PP-Practical	F&S	III	-	LH
CO1, CO2,	Demonstrate the Uttarabasti procedure step-by-step and its therapeutic benefits, indications and contraindications, and post-	PSY-GUD	MK	K	D,CBL, BL,DIS,	QZ ,VV-Viva,PP-Pract	F&S	III	-	NLHP48.1

CO4, CO5	procedure care..				PER	ical,P-CAS E,P-EXAM					

Non Lecture Hour Theory		
S.No	**Name of Activity**	**Description of Theory Activity**

Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 48.1	Demonstration of Uttarabasti procedure for Urethral Stricture / BPH with Indication, contraindication, and precautions.	**Steps** Preparation: Wash hands and wear appropriate PPE. Explain the procedure to the patient or simulation model and obtain consent. Patient Positioning: Position the patient in the lithotomy position (lying on the back with knees flexed and feet in stirrups). Ensure proper draping to maintain a sterile field. Catheter Insertion: Lubricate the catheter and gently insert it into the urethra (for males) or vaginal canal (for females). Advance the catheter carefully to the bladder or uterus, depending on the patient's gender. Medication Administration: Administer the prescribed liquid medicine (herbal decoction or medicated oil) through the catheter. Ensure the correct dosage is delivered and monitor the patient for any immediate reactions. Completion: Remove the catheter gently and ensure the patient is comfortable. Dispose of the catheter and other used materials properly. Post-Procedure Care: Monitor the patient for any signs of discomfort, infection, or adverse reactions. Provide post-procedure care instructions, including hydration and rest. Indications Urinary Problems: Such as urinary tract infections, cystitis, and urethral stricture.

		Prostate Enlargement: To reduce symptoms of benign prostatic hyperplasia (BPH). Infertility: In females, for conditions like blocked fallopian tubes and endometriosis. Menstrual Disorders: Such as dysmenorrhea and amenorrhea. Contraindications Infections: Active infections in the urinary or genital tract. Recent Surgery: Recent surgical procedures in the area. Allergies: Known allergies to the medications used in the procedure. Precautions Hygiene: Maintain strict hygiene to prevent infections. Patient Comfort: Ensure the patient is comfortable and informed throughout the procedure. Monitoring: Regularly monitor the patient for any adverse reactions or complications.

Topic 49 Paurusha Granthi Vikara (Diseases of Prostate) (LH :3 NLHT: 1 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO4, CO5	Illustrate the Anatomical, Physiological Structure, and Histological Features of the prostate. Explain Master Imaging Techniques with common surgical procedures involving the prostate.	CAP	MK	K	LRI,RP, D-BED, TUT,DIS	T-CS,PRN, VV-Viva, C-VC,CL-PR	F&S	III	-	NLHT49.1
CO1, CO3, CO5	Explain the Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications, and Management of Prostatitis and Prostatic Abscess.	CC	MK	K	L,L&PPT	T-CS,INT, C-VC,VV-Viva,PRN	F&S	III	-	LH
CO1, CO3, CO5	Define Aetiopathogenesis, Clinical Features & Management of Benign Prostate Hypertrophy.	CK	MK	K	LRI,L,L &PPT	PP-Practical,CL-PR,PRN,T-CS,VV-Viva	F&S	III	-	LH
CO1, CO3,	Demonstrate the skills to identify the clinical features, to perform a systematic examination of BPH, Prostatitis, and Prostatic	PSY-GUD	MK	KH	CD,D-M,CBL,	PP-Practical,CHK,Mini	F&S	III	-	NLHP49.1

CO5	Abscess. Differentiate between BPH, prostatitis, and prostatic abscess.				PBL,PER	-CEX,P-EXAM,OSCE				
CO1, CO3, CO4, CO5	Define the Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications, and Management of Carcinoma of Prostate.	CK	DK	K	L,L&PPT	P-VIVA,P-EXAM,CL-PR,PP-Practical,PRN	F&S	III	-	LH
CO1, CO2, CO3, CO5	Demonstrate the procedural steps of TURP, the use of surgical instruments and techniques for TURP, and the importance of precision and care during the procedure.	PSY-GUD	DK	KH	PBL,CD,PER,CBL,TUT	P-EXAM,P-MOD,P-VIVA,PRN,CL-PR	F&S	III	-	NLHP49.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 49.1	Surgical anatomy and physiology of Prostate gland.	**Anatomy Dissection**: Hands-on dissection and examination of the prostate to understand its structure. **Histology Slides**: Review and analyze histological slides of prostate tissue. **Imaging Techniques**: Practice using imaging tools like ultrasound, MRI, and CT scans to visualize the prostate. **Surgical Simulation**: Engage in simulations of common prostate surgeries, such as prostatectomy. **Clinical Case Discussions**: Discuss clinical cases involving prostate disorders and their management. **Group Discussions**: Facilitate group discussions on the anatomical variations and physiological functions of the prostate

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 49.1	Demonstration of BPH, Prostatitis, and Prostatic Abscess on patients or simulators.	**Steps** Preparation: Wash hands and wear appropriate PPE.

		Introduce yourself to the patient or simulation model and explain the procedure. Obtain consent from the patient or explain the purpose of the demonstration. General Inspection: Ask the patient to stand and then lie down. Observe the abdomen and perineal area for any visible swelling, asymmetry, or discoloration. Palpation: BPH: Palpate the prostate through the rectum (digital rectal examination) to assess size, consistency, and tenderness. BPH typically presents as an enlarged, firm, and non-tender prostate. Prostatitis: Palpate the prostate to check for tenderness, warmth, and swelling. Prostatitis often presents with a tender, boggy, and warm prostate. Prostatic Abscess: Palpate the prostate to identify a fluctuating mass or abscess. Prostatic abscesses are usually tender, and warm, and may have fluctuance. Special Tests: Transillumination: Shine a light through the scrotum to differentiate between solid and fluid-filled masses (if applicable). Prehn's Sign: Elevate the scrotum to see if the pain is relieved (positive in epididymitis, negative in testicular torsion). Auscultation (Optional): Listen for bowel sounds if a hernia is suspected. Documentation: Record your findings, including the size, location, and characteristics of any abnormalities. Note any associated symptoms such as pain, fever, or urinary symptoms.
NLHP 49.2	Procedure of TURP on the patients or simulators.	**Steps** Preparation: Set up the simulation environment or patient setup. Ensure all necessary equipment, including the resectoscope, irrigation system, and electrocautery unit, is ready and functioning. Introduce the procedure to the audience, explaining the purpose and steps.

		Patient Positioning: Position the patient or simulation model appropriately, typically in the lithotomy position. Ensure proper draping to maintain a sterile field. Insertion of the Resectoscope: Lubricate the resectoscope and gently insert it into the urethra. Advance the resectoscope to the prostate, ensuring clear visualization of the prostate and urethra. Visualization and Resection: Use the resectoscope to visualize the prostate and identify the verumontanum and ureteral orifices. Carefully resect the prostate tissue using the wire loop, ensuring to avoid perforation of the prostate capsule. Use electrocautery to control bleeding during the resection. Irrigation and Removal: Continuously irrigate the surgical field with sterile fluid to clear away resected tissue and maintain visibility. Remove the resected tissue from the bladder through the urethra. Completion: Once the resection is complete, remove the resectoscope. Inspect the surgical field for any remaining tissue or complications. Place a catheter to ensure proper drainage and irrigation post-procedure. Post-Procedure Care: Monitor the patient for any immediate complications such as bleeding or infection. Explain post-operative care instructions to the patient or simulation audience. **Recapitulation:** Precision and Care: Emphasize the importance of precision and careful technique to avoid complications such as perforation and excessive bleeding. Continuous Learning: Encourage ongoing practice and learning to improve surgical skills and outcomes. Patient Safety: Highlight the critical role of patient safety and proper post-operative care in ensuring successful recovery.

Topic 50 Mutramarga Vikara (Diseases of Urethra) (LH :2 NLHT: 1 NLHP: 0)										
A3	**B3**	**C3**	**D3**	**E3**	**F3**	**G3**	**H3**	**I3**	**K3**	**L3**
CO1, CO3, CO5	Illustrate the Aetiopathology, Clinical Features, Diagnostic tools, Management and Complications of Urethritis.	CAN	MK	K	BL,DIS, CBL,PT ,ML	C-VC,P-VI VA,PRN,P-EXAM,PP-Practical	F&S	III	-	NLHT50.1
CO1, CO3, CO5	Define Congenital Anomalies of the Urethra and its Aetiopathogenesis & Management.	CK	MK	K	L&PPT ,L	QZ ,SA,VV -Viva,P-VIVA	F&S	III	-	LH
CO1, CO3, CO5	Define Clinical Features & Management of Injuries to Urethra and Urethral Stricture.	CK	MK	K	L,X-Ray,L&PPT	P-VIVA,M-CHT,PRN, M-POS,VV-Viva	F&S	III	-	LH

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 50.1	Case Presentation of Urethritis.	**Case Study Analysis**: Review and discuss case studies of patients with urethritis. **Complication Management Simulation**: Engage in scenarios where students must manage complications arising from urethritis. **Treatment Plan Development**: Create comprehensive treatment plans for hypothetical patients. **Group Discussions**: Facilitate group discussions on the etiology and clinical features of urethritis.

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity

Topic 51 Medhra Vikara (Diseases of Penis) (LH :3 NLHT: 2 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3	Define Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications, and Management of Congenital anomalies of Penis, Niruddhaprakasha (Phimosis).	CK	MK	K	L,L&PPT	P-EXAM,P-VIVA,T-CS,PRN,VV-Viva	F&S	III	-	LH
CO1, CO2, CO4	Define Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications, and Management of Parivartika (Paraphimosis), Avapatika (Abnormal retraction / Tear of the prepuce).	CK	MK	K	L,L&PPT	PRN,PP-Practical,P-EXAM,T-CS,QZ	F&S	III	-	LH
CO1, CO2, CO4	Define Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Hypospadias & Epispadias.	CK	MK	K	L&PPT,BL,PER,L,CD	P-VIVA,P-EXAM,CL-PR, C-VC, VV-Viva	F&S	III	-	LH
CO1, CO3, CO5	Explain Aetiopathogenesis and development of Ectopia Vesicae and Balanoposthitis and identify their Clinical Features, Diagnostic Techniques, Treatment Plans, and Complications.	CAN	MK	K	SIM,CBL,DIS,CD,BL	PRN,P-VIVA,P-CASE,P-EXAM,VV-Viva	F&S	III	-	NLHT51.1
CO1, CO3, CO4, CO5	Enumerate the Causes and Progression of Carcinoma of the Penis, Peyronie's Disease, and Granuloma Inguinale with its Management.	CK	DK	K	LRI,CBL,BL,PER,TUT	P-VIVA,PRN,COM,VV-Viva	F&S	III	-	NLHT51.2
CO1, CO3, CO4, CO5	Demonstrate the skills to identify normal and abnormal findings in the Male External Genitalia and differentiate between various conditions affecting the genitalia.	PSY-GUD	MK	K	RP,DIS,CBL,CD,TUT	P-EXAM, Mini-CEX, P-VIVA,DEB,CL-PR	F&S	III	-	NLHP51.1
Non Lecture Hour Theory										

S.No	Name of Activity	Description of Theory Activity
NLHT 51.1	Examination of Ectopia Vesicae & Balanoposthitis.	**Case Study Analysis**: Review and discuss case studies of patients with Ectopia Vesicae and Balanoprosthitis. **Diagnostic Tools Workshop**: Hands-on practice with diagnostic tools and techniques used in identifying these conditions. **Role-Play**: Simulate patient-doctor interactions to practice diagnosing and explaining conditions to patients. **Group Discussions**: Facilitate group discussions on the aetiopathogenesis and clinical features of these conditions.
NLHT 51.2	Examination of Carcinoma of the Penis, Peyronie's Disease & Granuloma Inguinale.	**Case Study Analysis**: Examine and discuss case studies involving each of these conditions. **Role-Playing**: Simulate patient consultations to practice explaining diagnoses and treatment options. **Complication Scenarios**: Engage in scenarios where students must address complications arising from these conditions. **Treatment Plan Exercises**: Develop and present treatment plans for hypothetical patients. **Group Discussions**: Facilitate discussions on the etiopathogenesis and clinical features of these conditions.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 51.1	Examination of Male External Genitalia.	**Steps** Preparation: Wash hands with an antiseptic solution and wear Gloves. Introduce yourself to the patient explain the procedure and Obtain consent. Inspection: Ask the patient to undress and stand and then lie down. Inspect the pubic region, penis, scrotum, and perineum for any visible abnormalities such as swelling,

		discoloration, lesions, or discharge. Palpation: Penis: Gently palpate the shaft of the penis, noting any nodules, plaques, or tenderness. Foreskin: Retract the foreskin (if present) to inspect the glans and urethral meatus. Note any lesions, discharge, or phimosis. Testicles: Palpate each testicle between the thumb and fingers, checking for size, consistency, and tenderness. Normal testicles should be smooth and firm. Epididymis: Palpate the epididymis located at the back of each testicle. It should feel soft and non-tender. Spermatic Cord: Palpate the spermatic cord for any thickening or masses. Special Tests: Transillumination: If there is scrotal swelling and fluid-filled masses. Auscultation (Optional): If a hernia is suspected, listen for bowel sounds in the scrotal region. Documentation: Record your findings, including the size, location, and characteristics of any abnormalities. Note any associated symptoms such as pain or discharge.

Topic 52 Mushka Evum Vrishan Vikara (Diseases of Scrotum and Testis) (LH :2 NLHT: 0 NLHP: 4)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO5	Define Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications, and Management of Epididymo-orchitis, Epididymal cyst, Varicocele, and Spermatocele.	CK	MK	K	L,L&PPT ,BL,L &GD	DEB,PP-Practical,P-EXAM,PRN, P-VIVA	F&S	III	-	LH
CO1, CO3, CO5	Define the Development of Testis & Aetiopathogenesis, Clinical Features, Investigations, Complications & Management of Undescended Testis, Ectopic Testes, and Torsion of the Testis.	CK	MK	K	L&PPT ,L,BL,SDL	P-VIVA,QZ , C-VC,PRN, P-EXAM	F&S	III	-	LH

CO1, CO2, CO4	Demonstrate the skills to identify various types of Scrotal Swellings with their physical examination and Differentiation.	PSY-GUD	MK	KH	DIS,TUT,D,D-BED	OSCE,PRN,VV-Viva, OSPE,P-EXAM	F&S	III	-	NLHP52.1
CO1, CO2, CO4	Demonstrate the skills to identify different types of swellings in the Inguinoscrotal region with their thorough examination to distinguish between various conditions. Differentiate between Hydrocele, Epididymal Cyst, Testicular Tumour, and other swellings.	PSY-GUD	MK	K	BL,DIS,PER,D,TUT	CHK,OSPE,P-EXAM,DEB,OSCE	F&S	III	-	NLHP52.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 52.1	Examination of Scrotal Swelling.	**Steps** Preparation: Wash hands with an antiseptic solution and wear Gloves. Introduce yourself to the patient and explain the procedure. Obtain consent from the patient. General Inspection: Ask the patient to undress and stand and then lie down. Observe the scrotum for any visible swelling, asymmetry, or discoloration. Palpation: Hydrocele: Feel for a smooth, firm, fluid-filled swelling. It will transilluminate with a penlight. Epididymal Cyst: Palpate for a small, painless, fluid-filled cyst located above or behind the testicle. Varicocele: Feel for a “bag of worms” texture, especially prominent when the patient stands or performs the Valsalva maneuver. Testicular Tumor: Palpate for a firm, irregular mass within the testicle that does not transilluminate.

		Orchitis/Epididymitis: Feel for a swollen, tender testicle or epididymis, often accompanied by redness and warmth. Inguinal Hernia: Palpate the inguinal region for any lumps or protrusions that extend into the scrotum. Transillumination: Darken the room. Shine a penlight or small flashlight through the scrotal swelling. Fluid-filled swellings like hydroceles will transilluminate, creating a red glow. Auscultation (Optional): Listen for bowel sounds if a hernia is suspected. Special Tests: Prehn's Sign: Elevate the scrotum to see if the pain is relieved (positive in epididymitis, negative in testicular torsion). Documentation: Record your findings, including the size, location, and characteristics of the swelling. Note any associated symptoms such as pain or discomfort.
NLHP 52.2	Examination of Swelling in the Inguino scrotal region (Except Inguinal and Femoral Hernia).	**Steps** Preparation: Wash hands with antiseptic solution and wear Gloves. Introduce yourself to the patient and explain the procedure and Obtain consent. General Inspection: Ask the patient to stand and then lie down. Observe the inguino-scrotal region for any visible swelling, asymmetry, or discoloration. Palpation: Hydrocele: Feel for a smooth, firm, fluid-filled swelling confined to the scrotum. It will transilluminate with a penlight. Epididymal Cyst: Palpate for a small, painless, fluid-filled cyst located above or behind the testicle. Varicocele: Feel for a “bag of worms” texture, especially prominent when the patient stands or performs the Valsalva maneuver. Testicular Tumor: Palpate for a firm, irregular mass within the testicle that does not transilluminate. Orchitis/Epididymitis: Feel for a swollen, tender testicle or epididymis, often accompanied by redness

		and warmth. Auscultation (Optional): Listen for bowel sounds if a hernia is suspected. Special Tests: Transillumination: Shine a light through the scrotal swelling to differentiate between solid and fluid-filled masses. Prehn's Sign: Elevate the scrotum to see if pain is relieved (positive in epididymitis, negative in testicular torsion). Documentation: Record your findings, including the size, location, and characteristics of the swelling with associated symptoms such as pain or discomfort. **Recapitulation:** Accurate Diagnosis: Early and accurate diagnosis of scrotal swellings is essential for appropriate management and treatment. Patient Education: Inform patients about the importance of seeking medical advice for worsening symptoms. Follow-Up: Regular follow-up is crucial to monitor changes or complications.

Topic 53 Vriddhi Roga (LH :1 NLHT: 0 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO3, CO5	Define Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications, and Management of Mutravriddhi (Hydrocele).	CK	MK	K	L,L&GD,L&PPT	PP-Practical,PRN,SP,P-EXAM,VV-Viva	F&S	III	-	LH
CO1, CO2, CO4, CO5	Demonstrate the skills to identify the characteristics and symptoms of Hydrocele with a thorough physical examination to detect Hydrocele. Differentiate between Hydrocele and other Scrotal Swellings.	PSY-GUD	DK	KH	DIS,CBL,BL,TUT,PT	CHK,P-VIVA,PRN,Mini-CEX,OSPE	F&S	III	-	NLHP53.1

Non Lecture Hour Theory		
S.No	**Name of Activity**	**Description of Theory Activity**
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 53.1	Examination of Hydrocele.	**Steps** Preparation: Wash hands with an antiseptic solution and wear Gloves. Introduce yourself to the patient explain the procedure and obtain consent from the patient. General Inspection: Undress the patient and ask to stand up. Observe the scrotum for asymmetry or discoloration. Palpation: Ask the patient to lie down. Gently palpate the scrotum to identify the presence of fluid-filled. Check if the swelling is confined to the scrotum or extends upward into the inguinal canal. Darken the room and test for Transillumination. Shine a penlight or small flashlight through the scrotal swelling. A hydrocele will transilluminate, meaning the light will pass through the fluid-filled swelling, creating a red glow. Auscultation (Optional): Listen for bowel sounds over the scrotum if you suspect an inguinal hernia or bowel involvement. Documentation: Record your findings- the size, location, and characteristics of the Hydrocele and associated symptoms such as pain or discomfort.
Topic 54 Antravriddhi (Hernia) (LH :4 NLHT: 2 NLHP: 4)		

A3	B3	C3	D3	E3	F3	G3	H3	I3	K3	L3
CO1, CO4, CO5	Enumerate Surgical Anatomy of Inguinal Canal and Aetiopathology and Classification of Hernia.	CK	MK	K	L&PPT ,BL,L	PRN,VV-Viva,CL-PR, P-EXAM,PP-Practical	F&S	III	-	LH
CO1, CO4, CO5	Explain Aetiopathogenesis, Classification, Clinical Features, Diagnosis of Hernia (AntraVriddhi) (Inguinal Hernia -Direct & Indirect, Enterocele, Omentocele).	CAN	MK	K	PER,L& PPT ,L	P-VIVA,P-EXAM,T-CS,PRN,CL-PR	F&S	III	-	LH
CO1, CO4, CO5	Describe Complications and Management of Inguinal Hernia (Antravriddhi).	CC	MK	K	PER,L& PPT ,L &GD,L, D-BED	P-EXAM,P-VIVA, C-VC,T-CS,PRN	F&S	III	-	LH
CO1, CO2, CO3, CO5	Explain the Surgical Anatomy of the Femoral Canal & Aetiopathogenesis, Clinical Features, Investigations, Complications & Management of Femoral Hernia.	CAN	MK	K	PER,L_ VC,SIM ,L&GD, PT	P-VIVA,DEB,PRN,P-EXAM,T-CS	F&S	III	-	NLHT54.1
CO1, CO2, CO4, CO5	Enumerate Aetiopathogenesis, Classification, Clinical Features, Examinations, Investigations & Diagnosis, Complications, and Management of Epigastric Hernia, Umbilical Hernia, and Paraumbilical hernia.	CK	MK	K	CBL,SIM,PT,TUT,D	OSCE,P-VIVA, C-VC,INT,PRN	F&S	III	-	NLHT54.2
CO1, CO4, CO5	Define Aetiopathogenesis, Classification, Clinical Features, Examinations, Investigations & Diagnosis, Complications, and Management of Incisional Hernia.	CK	MK	K	L,L&PPT	CL-PR,PRN,P-EXAM ,P-VIVA	F&S	III	-	LH
CO1, CO2, CO4,	Identify the Anatomical Landmarks associated with Inguinal Hernias. Perform a detailed physical examination to detect Inguinal Hernias and Differentiate between Direct and Indirect	PSY-GUD	MK	KH	DIS,TUT,SIM,PT,D-	PRN,P-VIVA,CHK,Mini-CEX,P-	F&S	III	-	NLHP54.1

CO5	Inguinal Hernias.				BED	EXAM				
CO1, CO2, CO4, CO5	Identify the characteristics of Umbilical Hernia and Incisional Hernia and perform a systematic examination to detect Hernias. Differentiate between Umbilical Hernia and Incisional Hernia and Communicate findings effectively to the patients.	PSY-GUD	MK	KH	CBL,TUT,D-BED,DIS,CD	Mini-CEX,P-EXAM,CHK,PRN,SP	F&S	III	-	NLHP54.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 54.1	Examination of Femoral Hernia.	1. **Anatomy Lab**: Organize a hands-on lab session using cadaver dissections or high-quality anatomical models to explore the surgical anatomy of the femoral canal. Ensure students can identify all relevant structures and understand their spatial relationships. 2. **Role-Playing**: Conduct role-playing sessions where students act as surgeons and patients. The "surgeons" can explain the condition, diagnostic procedures, and treatment options to their "patients," enhancing communication skills and empathy. 3. **Investigation Workshops**: Use diagnostic tools, such as ultrasound, CT scans, and MRIs, to identify and understand femoral hernias. Teach students how to interpret these images and understand their clinical implications. 4. **Surgical Simulation**: If available, use surgical simulation tools to let students practice the procedures involved in diagnosing and managing femoral hernias. This could include virtual surgeries or hands-on practice with mannequins. 5. **Guest Lectures**: Invite experienced surgeons to share their insights and experiences with femoral hernias. They can discuss the latest techniques and challenges in diagnosis and management. 6. **Group Discussions**: Facilitate group discussions on the complications and management strategies of femoral hernias. Encourage students to share their thoughts, ask questions, and

		debate different approaches.
NLHT 54.2	Examination of Epigastric Hernia, Umbilical Hernia, and Paraumbilical Hernia.	1. **Anatomy Lab**: Organize a hands-on lab session using cadaver dissections or high-quality anatomical models to explore the surgical anatomy of the femoral canal. Ensure students can identify all relevant structures and understand their spatial relationships. 2. **Role-Playing**: Conduct role-playing sessions where students act as surgeons and patients. The "surgeons" can explain the condition, diagnostic procedures, and treatment options to their "patients," enhancing communication skills and empathy. 3. **Investigation Workshops**: Use diagnostic tools, such as ultrasound, CT scans, and MRIs, to identify and understand femoral hernias. Teach students how to interpret these images and understand their clinical implications. 4. **Surgical Simulation**: If available, use surgical simulation tools to let students practice the procedures involved in diagnosing and managing femoral hernias. This could include virtual surgeries or hands-on practice with mannequins. 5. **Guest Lectures**: Invite experienced surgeons to share their insights and experiences with femoral hernias. They can discuss the latest techniques and challenges in diagnosis and management. 6. **Group Discussions**: Facilitate group discussions on the complications and management strategies of femoral hernias. Encourage students to share their thoughts, ask questions, and debate different approaches.
Non Lecture Hour Practical		
S.No	**Name of Practical**	**Description of Practical Activity**
NLHP 54.1	Examination of Inguinal Hernia.	**Steps of Preparation:**

		Wash hands and wear Gloves. Introduce yourself to the patient and explain the procedure. Obtain consent from the patient. General Inspection: Undress the patient and Ask him to stand up. Observe the inguinal region for any visible bulges or asymmetry. Palpation: Ask the patient to lie down. Palpate the inguinal region, feeling for any lumps or protrusions. Using your index finger, gently invaginate the scrotal skin into the inguinal canal. Ask the patient to cough or perform a Valsalva maneuver and feel for any impulse against your finger. Differentiation: Indirect Inguinal Hernia: Often extends into the scrotum and is felt as a bulge along the inguinal canal. Direct Inguinal Hernia: Typically does not extend into the scrotum and is felt as a bulge medial to the inferior epigastric vessels. Auscultation (Optional): Listen for bowel sounds over the hernia site to rule out bowel obstruction. Documentation: Record your findings, including the size, location, and characteristics of the hernia and associated symptoms such as pain or discomfort.
NLHP 54.2	Examination of Umbilical Hernia and Incisional Hernia.	**Steps** Preparation: Wash hands with an antiseptic solution. Introduce yourself to the patient and explain the procedure. Obtain consent from the patient. General Inspection: Observe the patient's general appearance. Look for any visible bulges or asymmetry in the abdominal area. Palpation:

		Ask the patient to lie down and relax. Gently palpate the abdomen, starting from the umbilicus and moving outward. For umbilical hernia, palpate around the umbilicus to feel for a protrusion. For incisional hernia, palpate along the previous surgical scar to check for any bulging. Auscultation: Use a stethoscope to listen for bowel sounds over the hernia site to rule out bowel obstruction. Special Tests: Ask the patient to cough or perform a Valsalva maneuver (bearing down) to see if the hernia becomes more prominent. For incisional hernia, check for tenderness or signs of infection around the scar. Documentation: Record your findings, including the size, location, and characteristics of the hernia and associated symptoms such as pain or discomfort.

Table 4 : NLHT Activity

(*Refer table 3 of similar activity number)

Activity No*	CO No	Activity details
1.1	CO1	History of surgery
3.1	CO1,CO7	Vranitagara
4.1	CO1,CO2,CO3,CO5	Preoperative assessment
4.2	CO1,CO2,CO4,CO5, CO7	Safe General Surgery
5.1	CO1,CO7	Informed consent in a simulated environment
9.1	CO1,CO2,CO7	Demonstration of Kshar & Kshara Sutra – Preparation, and Method of Application
9.2	CO1,CO2,CO4,CO7	Ksharsutra changing
12.1	CO1,CO2,CO4,CO5	Training of Bandaging on Simulators with relevant modern techniques
14.1	CO1,CO2,CO3,CO4	Electrolyte loss
15.1	CO1,CO2,CO4	Describe Rakta stambhana and methodsof Haemostasis.
15.2	CO1,CO2,CO4,CO6	Describe Blood Transfusion –Blood groups, Compatibility, Indications, Contraindications, Complications, Management. along with Component therapy
19.1	CO1,CO2,CO4	Vranashotha-Nirukti, Nidana, Samprapti, Prakara, Lakshana, Sadhya-asadhyata, Upadrava and Chikitsa
19.2	CO1,CO2,CO5,CO6	Explain etiopathogenesis, types, Clinical Features, Investigations, Differential Diagnosis, complications and management of Kotha (Gangrene)
19.3	CO1,CO2,CO4	Definition, Classification, Clinical features, Complications of Tumour
20.1	CO1,CO2,CO4	Sadhyovrana -(Traumatic wounds) – Nidana, Prakara, Lakshana, Upadrava and Chikitsa.

20.2	CO1,CO2,CO4	Surgical site infection.
22.1	CO1,CO2,CO4	Thyroid gland - anatomy & physiology
22.2	CO1,CO2,CO4	Toxic goiter, Thyroiditis
22.3	CO1,CO2,CO4	Neoplasm of Galaganda (thyroid) -Nidana, Samprapti, Lakshana and Chikitsa
23.1	CO1,CO2,CO4	Surgical Anatomy & Surgical Pathology
27.1	CO1,CO2,CO4	Fracture of scapula & clavicle
27.2	CO1,CO2,CO4	Clinical features, Diagnosis, Complications, and Management of Femur & Patella
27.3	CO1,CO2,CO4	Clinical features, Diagnosis, Complications, and Management of Tibia and Pelvic bones
27.4	CO1,CO2,CO4	Dislocation of joints
27.5	CO1,CO2,CO4	Management of Shoulder & Elbow Dislocation
28.1	CO1,CO2,CO4	Diagnosis, Treatment & Complications of Cysts, Tumours of bones
28.2	CO1,CO2,CO5	Osteoporosis and Paget's disease
29.1	CO1,CO3,CO5	Brain tumours and their management
30.1	CO1,CO3,CO5	Ankylosing Spondylitis
31.1	CO1,CO3,CO5	Sthana Vidradhi - Breast abscess
31.2	CO1,CO3,CO5	Fibroadenoma and Fibroadenosis
32.1	CO1,CO3,CO5,CO6	Examination of Pleurisy, Pleural Abscess, Pleural Effusion, Tumours of the Lung
33.1	CO1,CO3,CO5,CO6	Examination of Oesophageal Varices

36.1	CO1,CO3,CO4	Examination of Ascites
36.2	CO1,CO3,CO4,CO5	Examination of Peritonitis
37.1	CO1,CO3,CO6	Examination of Pyloric Stenosis
38.1	CO1,CO3,CO4,CO7	Demonstration of Blind loop syndrome, Short Bowel Syndrome & Typhoid Enteritis
38.2	CO1,CO3,CO6	Examination of Intussusception
39.1	CO1,CO3	Diagnosis of Carcinoma of Colon
40.1	CO1,CO3,CO5	Surgical Anatomy & physiology of Ano Rectal Conditions
40.2	CO1,CO4	Examination of Anorectal Abscesses (Guda Vidradhi) and Bhagandara (Fistula-in-ano)
40.3	CO1,CO2,CO3,CO7	Examination of Fissure in Ano (Parikartika)
40.4	CO1,CO2,CO4	Examination of Pilonidal Sinus, Proctitis, Pruritis Ani & Injuries of Anorectal region
42.1	CO1,CO3,CO6	Examination of the case of Acute Liver Injury
43.1	CO1,CO4,CO5	Surgical anatomy of Gall Bladder, congenital anomalies of Gall Bladder & Basic Investigations
44.1	CO1,CO4	Surgical Anatomy & physiology, Congenital Anomalies of Pancreas
46.1	CO1,CO2	
46.2	CO1,CO3,CO5	Congenital anomalies of Kidney, Ureter & Polycystic Kidney discussion.
46.3	CO1,CO3,CO5	Demonstration of Injuries to the Kidneys And Ureters.
46.4	CO1,CO3,CO5	Ureteral Stone examination.
47.1	CO1,CO3,CO5	Surgical Anatomy of Bladder & Congenital Anomalies of Blader.

47.2	CO1,CO3,CO5	Demonstration of Haematuria, Anuria -An evaluation.
49.1	CO1,CO4,CO5	Surgical anatomy and physiology of Prostate gland.
50.1	CO1,CO3,CO5	Case Presentation of Urethritis.
51.1	CO1,CO3,CO5	Examination of Ectopia Vesicae & Balanoposthitis.
51.2	CO1,CO3,CO4,CO5	Examination of Carcinoma of the Penis, Peyronie’s Disease & Granuloma Inguinale.
54.1	CO1,CO2,CO3,CO5	Examination of Femoral Hernia.
54.2	CO1,CO2,CO4,CO5	Examination of Epigastric Hernia, Umbilical Hernia, and Paraumbilical Hernia.

Table 5 : List of Practicals

(*Refer table 3 of similar activity number)

Practical No*	CO No	Practical Activity details
1.1	CO1,CO3	Surgical case taking
1.2	CO1,CO3,CO4	Special signs and symptoms pertaining to surgery
2.1	CO1,CO2	Demonstration, Comparison & classification of instruments
3.1	CO1,CO2,CO3	Aseptic techniques, sterilization and disinfection of Surgical instruments, OT sterilization
3.2	CO1,CO2,CO4	Hand washing techniques, Donning of Gloves & Gown
4.1	CO1,CO2,CO4,CO6	Demonstration of BLS (Basic life support)
4.2	CO1,CO2,CO4,CO6	Maintenance of an airway / Endotracheal intubation in a mannequin
5.1	CO1,CO2,CO5,CO6	Common minor surgical procedures (Excision of Corn, Cysts, Lipoma, etc)
6.1	CO1,CO2,CO5,CO6	First aid
6.2	CO1,CO2,CO4	Demonstartion of Chhedan(Excision), Bhedan(Incision), Lekhan(scraping) on simulator
6.3	CO1,CO2,CO4	Demonstration of Vedhan & Visravan (Tapping Of abdomen, Hydrocele, ICD) on simulator
6.4	CO1,CO2,CO4	Demonstration of Aharana and Eshana (extraction and probing)on simulator
6.5	CO1,CO2,CO4	Demonstration of Seevan(Suturing & Knots) and minor surgical procedures in patient / simulated environment
7.1	CO1,CO2,CO4,CO6	Hands-on training -Drains
7.2	CO1,CO2,CO4,CO5, CO6	Catheterization -Hands-on training on Simulators
7.3	CO1,CO2,CO6	IV canulation, IM / IV / Subcutaneous / Intradermal Injection

7.4	CO1,CO2,CO4,CO6	Hands On Training- Ryle's tube Insertion
8.1	CO1,CO3,CO7	Marma identification and manipulation techniques in musculoskeletal disorders and Sports injuries
9.1	CO1,CO2,CO4,CO7	Application of Ksharodaka, Kshartaila, Ksharvarti, Ksharpichu in Dushtavrana
9.2	CO1,CO2,CO4,CO7	Demonstration and Hands-on training of Kshar karma in Anorectal disorders (Arsha, Bhagandara, Nadivrana)
10.1	CO1,CO2,CO4,CO7	Hands-on experience with Agnikarma in the pain management of any one disease (Gridhrasi, Avabahuka, etc)
10.2	CO1,CO2,CO4,CO7	Demonstration of Agnikarma in the management of any one surgical disease (Arsha, Charmakeel, etc)
11.1	CO1,CO2,CO4,CO7	Siravedha in the management of any one surgical disease (Grudhrasi, Uttan Vatarakta, etc)
11.2	CO1,CO2,CO4,CO7	Alabu (cupping) procedure in the management of any one surgical disease (Kati Graham, Manya Graha, etc)
11.3	CO1,CO2,CO4,CO7	Jaloukavcharana (Leech Therapy) in the management of any one surgical disease (Vidradhi, Dushtavrana, Koth, etc)
12.1	CO1,CO2,CO4	Perform training of Bandaging on Simulators with relevant modern techniques
12.2	CO1,CO3,CO5	Demonstration of the Transportation of injured patients (Double Human Crutch, Fireman’s Lift, Two-handed Seat, etc) & Recovery Position
13.1	CO1,CO3,CO5	Heimlich maneuver- Hands-on training (Choking)
14.1	CO1,CO3,CO6	Calculations & selections of fluids in various conditions like Dehydration, Shock& Burns
14.2	CO1,CO3,CO6	Acid Base Balance in various conditions like perforation, vomiting, etc
17.1	CO1,CO3,CO6	Demonstration of Chhaya vikiran (X-ray) of Chest, Abdomen, Urology. and Musculoskeletal organs
17.2	CO1,CO5,CO6	Hands on training of different types of Biopsy

17.3	CO1,CO3,CO5,CO6	Avayava pariksha (CT,MRI) of Chest, abdomen, Urology bones & joints
18.1	CO1,CO4,CO7	Surgical intervention according to Shatkriyakala - Special focus on Arsha, Bhagandara, and infective pathology ex.Appendicitis, Cholecystitis, etc.
19.1	CO1,CO2,CO4	Examination of Granthi (lump or Swelling)
19.2	CO1,CO2,CO4,CO6	Emergency management in different types of shock
19.3	CO1,CO3,CO6	Assessment, examination, and documentation of Pramada Dagda (Burn) case
20.1	CO1,CO2,CO4	Examination of an Ulcer
20.2	CO1,CO2,CO4,CO5	Examination of the peripheral nerve lesions
20.3	CO1,CO2,CO4	Demonstration of wound dressings
21.1	CO1,CO2,CO4	Examination of the Hand
22.1	CO1,CO2,CO4	Examination of Galaganda (thyroid gland)
22.2	CO1,CO2,CO4	Examination of the Gala (Neck)
22.3	CO1,CO2,CO4	Examination of a Lymphatic system
23.1	CO1,CO2,CO4	Examination of Varicose Vein
23.2	CO1,CO2,CO4	Examination and differential diagnosis of unilateral and bilateral lower limb edema
24.1	CO1,CO2,CO4	Examination of the Dhamani Vikara (peripheral vascular diseases)
25.1	CO1,CO2,CO3,CO4, CO5	Techniques of Amputation & Complications with examples of individual amputation
25.2	CO1,CO2,CO4	Examinations of Diseases of Snayu Vikara (Muscle, Ligaments, Tendon and Fascia)
26.1	CO1,CO3,CO4	Safety Precautions in the patient of HIV and hepatitis infected Hepatitis B and C Patients

27.1	CO1,CO2,CO4	Examination of the Bone and Joint injuries
27.2	CO1,CO2,CO4	Examination of Injuries about Individual Joints
27.3	CO1,CO2,CO4	Hands on training on traction (skin and skeletal)
27.4	CO1,CO2,CO4	First aid management of fracture cases
28.1	CO1,CO2,CO4	Demonstrate Examination of the diseases of bone
28.2	CO1,CO3,CO5	Examination of pathological joints
28.3	CO1,CO3,CO5	Examination of foot
29.1	CO1,CO3,CO5,CO6	Examination of Head Injuries (Shirobhighaata)
30.1	CO1,CO3,CO4	Hands-on training on 3 stages of neck fracture stabilization with logroll
30.2	CO1,CO2,CO4,CO6	Examination of Spinal Injuries and Abnormalities
31.1	CO1,CO3,CO4,CO5	Examination of the breast and patient education for ‘self-examination of breast.
32.1	CO1,CO3,CO5,CO6	Examination of injuries of the chest (Urah abhigatha)
32.2	CO1,CO3,CO5,CO6	Examination of Diseases of the Chest
33.1	CO1,CO3,CO5	Examination of Dysphagia
35.1	CO1,CO3,CO5,CO6	Examination of Acute Abdomen
37.1	CO1,CO2,CO4	Examination of Abdominal lump
38.1	CO1,CO2,CO4	Per abdominal Clinical Examination.
39.1	CO1,CO2,CO4	Examination of Chronic Abdomen
40.1	CO1,CO2,CO4,CO5	Examination of a Sinus or Fistula and Hands-on training on Simulators
40.2	CO1,CO2,CO3	Examination of Rectal case and Hands-on training on Simulators

41.1	CO1,CO3,CO4,CO6	Examination of Abdominal Injuries
42.1	CO1,CO2,CO4	Demonstration of Surgical anatomy of the liver, Acute Liver Injury in patients, or simulator.
42.2	CO1,CO2,CO4	Demonstration of Diagnosis & Management of Surgical Jaundice with ERCP on patients /simulator.
42.3	CO1,CO2,CO4	Examination of Hepatomegaly & PAIR in Liver Abscess and Hands-on Practice.
42.4	CO1,CO2,CO4,CO6	Demonstration of Paracentesis inpatient or simulator.
42.5	CO1,CO2,CO4	Surgical management of Portal Hypertension
43.1	CO1,CO2,CO4	MRCP & ERCP Demonstration
43.2	CO1,CO2,CO4,CO6	Cholecystitis and Choledocholithiasis Examination
43.3	CO1,CO2,CO4	Case taking and examination of cholecystitis on the patients.
43.4	CO1,CO2,CO4	Case presentation of Carcinoma of Gall Bladder
44.1	CO1,CO2,CO4	Demonstration of Pseudo Pancreatic cyst on patient or simulator.
44.2	CO1,CO2,CO4	Case taking of Pancreatitis with effective communication skills
44.3	CO1,CO2,CO4,CO5	Case presentation of Neoplasm of Pancreas and its management.
45.1	CO1,CO2,CO4,CO6	Case presentation of the Splenic Rupture & Splenomegaly on the patients or simulator.
46.1	CO1,CO3,CO5	Case presentation on CKD, Perinephric Abscess & **R**enal Calculus on patients, or simulator.
47.1	CO1,CO3,CO5	Examination of Urinary System Disorders.
47.2	CO1,CO2,CO3,CO4, CO5,CO6	Suprapubic catheterization, Cystoscopy, PCNL,& ESWL on patients or simulators.
48.1	CO1,CO2,CO4,CO5	Demonstration of Uttarabasti procedure for Urethral Stricture / BPH with Indication, contraindication, and precautions.

49.1	CO1,CO3,CO5	Demonstration of BPH, Prostatitis, and Prostatic Abscess on patients or simulators.
49.2	CO1,CO2,CO3,CO5	Procedure of TURP on the patients or simulators.
51.1	CO1,CO3,CO4,CO5	Examination of Male External Genitalia.
52.1	CO1,CO2,CO4	Examination of Scrotal Swelling.
52.2	CO1,CO2,CO4	Examination of Swelling in the Inguino scrotal region (Except Inguinal and Femoral Hernia).
53.1	CO1,CO2,CO4,CO5	Examination of Hydrocele.
54.1	CO1,CO2,CO4,CO5	Examination of Inguinal Hernia.
54.2	CO1,CO2,CO4,CO5	Examination of Umbilical Hernia and Incisional Hernia.

Table 6 : Assessment Summary: Assessment is subdivided in A to H points

6 A : Number of Papers and Marks Distribution

Subject Code	Papers	Theory	Practical/Clinical Assessment (200)					Grand Total
			Practical	Viva	Elective	IA	Sub Total	
AYUG-ST	2	200	100	70	-	30	200	400

6 B : Scheme of Assessment (Formative and Summative)

PROFESSIONAL COURSE	FORMATIVE ASSESSMENT			SUMMATIVE ASSESSMENT
	First Term (1-6 Months)	Second Term (7-12 Months)	Third Term (13-18 Months)	
Third	3 PA & First TT	3 PA & Second TT	3 PA	**UE****

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations; **NA:** Not Applicable.
****University Examination shall be on entire syllabus

6 C : Calculation Method for Internal assessment Marks

TERM	PERIODICAL ASSESSMENT*					TERM TEST**	TERM ASSESSMENT	
	A 3	B	C	D	E	F	G	H
	1 (15 Marks)	2 (15 Marks)	3 (15 Marks)	Average (A+B+C/3)	Converted to 30 Marks (D/15*30)	Term Test (Marks converted to 30)	Sub Total _/60 Marks	Term Assessment (…./30)
FIRST							E+F	(E+F)/2
SECOND							E+F	(E+F)/2
THIRD						NIL		E
Final IA	Average of Three Term Assessment Marks as Shown in 'H' Column.							
	Maximum Marks in Parentheses *Select an Evaluation Method which is appropriate for the objectives of Topics from the Table 6 D for Periodic assessment. Conduct 15 marks assessment and enter marks in A, B, and C. ** Conduct Theory (100 Marks)(MCQ(20*1 Marks), SAQ(8*5), LAQ(4*10)) and Practical (100 Marks) Then convert to 30 marks.							

6 D : Evaluation Methods for Periodical Assessment

S. No.	Evaluation Methods
1.	Practical / Clinical Performance
2.	Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3.	Open Book Test (Problem Based)
4.	Summary Writing (Research Papers/ Samhitas)
5.	Class Presentations; Work Book Maintenance
6.	Problem Based Assignment
7.	Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8.	Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9.	Small Project
10.	Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3.

Topics for Periodic Assessments

PA	Paper 1	Paper 2
PA 1	Topic **1 To 3**	-
PA 2	Topic **4 To 7**	-
PA 3	Topic **8 To 12**	-
Term Test 1	Entire Syllabus of Term 1 of 2 papers	
PA 4	Topic **16 To 20**	-
PA 5	Topic **21 To 26**	-
PA 6	-	Topic **27 To 32**
Term Test 2	Entire Syllabus of Term 2 of 2 papers	
PA 7	-	Topic **36 To 42**
PA 8	-	Topic **43 To 48**
PA 9	-	Topic **49 To 54**

6 E : Question Paper Pattern

III PROFESSIONAL BAMS EXAMINATIONS
AyUG-ST
PAPER-I
Time: 3 Hours Maximum Marks: 100
INSTRUCTIONS: All questions compulsory

		Number of Questions	**Marks per question**	**Total Marks**
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.

6 F : Distribution of theory examination

Paper 1 (Fundamentals of Shalya Tantra)					
Sr. No	**A List of Topics**	**B Marks**	**MCQ**	**SAQ**	**LAQ**
1	**Introduction to Shalya Tantra (Introduction to development of surgery)**	15	Yes	Yes	Yes
2	**Yantra and Shastra (Blunt and sharp instruments)**		Yes	Yes	Yes
3	**Nirjantukarana (Sterilization)**		Yes	Yes	No
4	**Sangyaharana (Anaesthesia)**		Yes	Yes	No
5	**Trividha Karma (Pre, Operative and Post Operative care)**		Yes	Yes	Yes
6	**Shastra Karma (Operative procedure)**		Yes	Yes	Yes
7	**Yogya (Experimental Surgical Training)**		Yes	Yes	Yes
8	**Marma (Vital points)**	5	Yes	Yes	No
9	**Kshara Karma**	15	Yes	Yes	Yes
10	**Agnikarma**		Yes	Yes	Yes
11	**Raktamokshana**		Yes	Yes	Yes
12	**Bandha Vidhi**	6	Yes	Yes	No
13	**Pranashta Shalya**		Yes	Yes	No
14	**Fluid, Electrolyte, Acid Base Balance and Nutrition in surgical practice**	5	Yes	No	No
15	**Rakta**		Yes	No	No
16	**Life Saving and Emergency Medicines in surgical practice (Prana Rakshaka and Atyayika Dravya)**	4	Yes	No	No
17	**Naidanik Vidhi (Diagnostic techniques)**		Yes	No	No
18	**Shat Kriyakala in surgical practice**	5	Yes	Yes	No
19	**Samanya Vyadhi Parichaya**	10	Yes	Yes	Yes
20	**Vrana**	10	Yes	Yes	Yes
21	**Kshudra Roga**	3	Yes	No	No
22	**Manya Vikara**	5	Yes	Yes	No
23	**Sira Vikara (Venous Disorders)**	10	Yes	Yes	Yes
24	**Dhamani Vikara (Arterial disorders)**		Yes	Yes	Yes
25	**Snayu Vikara (Diseases of tendons and ligaments)**	5	Yes	No	No
26	**AIDS - HIV and Hepatitis (B and C)**	2	Yes	No	No

Total Marks	**100**	

Paper 2 (Shalya Tantra Chikitsa Siddhanta)					
Sr. No	**A List of Topics**	**B Marks**	**MCQ**	**SAQ**	**LAQ**
27	**Bhagna (Skeletal Injuries)**	10	Yes	Yes	Yes
28	**Asthi Sandhi Vikara (Diseases of Bone and Joints)**	5	Yes	Yes	No
29	**Shirobhighata (Cranio-cerebral Injurie/ Disorders)**	6	Yes	Yes	No
30	**Kasheruka Vikara (Diseases of Spine)**		Yes	No	No
31	**Stana Roga (Diseases of Breast)**	5	Yes	No	No
32	**Urah Vikara (Diseases of Chest)**	3	Yes	No	No
33	**Anna Nalika Vikara (Diseases of Oesophagus)**	2	Yes	No	No
34	**Gulma Roga**	2	Yes	No	No
35	**Shoola Vyadhi**		Yes	No	No
36	**Udara Roga**	5	Yes	Yes	No
37	**Aamashaya Evam Adho-Aamashaya Vikara (Diseases of Stomach and Duodenum)**	12	Yes	Yes	Yes
38	**Kshudrantra Vikara (Diseases of Small Intestine)**		Yes	Yes	Yes
39	**Brihadantra Vikara (Diseases of Large Intestine)**		Yes	Yes	Yes
40	**Guda Vikara (Diseases of Rectum and Anal Canal)**		Yes	Yes	Yes
41	**Udarabhighata (Abdominal Injuries)**		Yes	No	No
42	**Yakrit Vikara (Diseases of Liver)**	15	Yes	Yes	Yes
43	**Pittashaya Vikara (Diseases of Gall Bladder)**		Yes	Yes	Yes
44	**Agnyashaya Vikara (Diseases of Pancreas)**	5	Yes	Yes	No
45	**Pleeha Vikara (Diseases of Spleen)**		Yes	Yes	No
46	**Vrikka Evam Mutravahini Vikara (Diseases of Kidney and Ureters)**	15	Yes	Yes	Yes
47	**Mutrashaya Vikara (Diseases of Urinary bladder)**		Yes	Yes	Yes
48	**Mutraghata and Mutrakrichra**		Yes	Yes	Yes
49	**Paurusha Granthi Vikara (Diseases of Prostate)**		Yes	Yes	Yes
50	**Mutramarga Vikara (Diseases of Urethra)**		Yes	Yes	Yes

51	**Medhra Vikara (Diseases of Penis)**	15	Yes	Yes	Yes
52	**Mushka Evum Vrishan Vikara (Diseases of Scrotum and Testis)**		Yes	Yes	Yes
53	**Vriddhi Roga**		Yes	Yes	Yes
54	**Antravriddhi (Hernia)**		Yes	Yes	Yes
Total Marks		**100**			

6 G : Instructions for UG Paper Setting & Blue print

1. All questions shall be compulsory.
2. Questions shall be drawn based on Table 6F, which provides the topic name, types of questions (MCQ(Multiple Choice Question), SAQ(Short Answer Question), LAQ(Long Answer Question)).
3. The marks assigned in Table 6F for each topic/group of topics shall be considered as the maximum allowable marks for that topic/group of topics.
4. Ensure that the total marks allocated per topic/group of topics do not exceed the limits specified in Table 6F.
5. Refer to Table 6F before setting the questions. Questions shall be framed only from topics where the type is marked as “YES”, and avoided if marked as “NO”.
6. Each 100-mark question paper shall contain:
   - 20 MCQs
   - 8 SAQs
   - 4 LAQs

7. MCQs:
   - Majority shall be drawn from the Must to Know part of the syllabus.
   - Questions from the Desirable to Know part of syllabus shall not exceed 3.
   - Questions from the Nice to Know part of syllabus shall not exceed 2.

8. SAQs:
   - Majority shall be drawn from the Must to Know part of the syllabus.
   - Questions from the Desirable to Know part of syllabus shall not exceed 1.
   - No questions shall be drawn from the Nice to Know part of syllabus.
   - SAQs shall assess understanding, application, and analysis, rather than simple recall.

9. LAQs:
   - All LAQs shall be drawn exclusively from the Must to Know part of the syllabus.
   - No questions shall be taken from the Desirable to Know or Nice to Know part of the syllabus.
   - Number of LAQs should not exceed one per topic unless maximum marks exceed 20 for the topic.

10. Long Answer Questions shall be structured to assess higher cognitive abilities, such as application, analysis, and synthesis.
11. Follow the guidelines in User Manual III for framing MCQs, SAQs, and LAQs.

6 H : Distribution of Practical Exam

S.No	Heads	Marks
1	Spotting (Instruments, X-ray and Drugs etc) - 5 spots 4 marks each.	20
2	Clinical case taking (One case)	30
3	Demonstration of procedures: Demonstration of surgical and parasurgical procedures	40
4	Records : 1. 10 Instruments with diagrams 2. 10 Records of surgical and parasurgical procedures (CPR,CATHERIZATION,ENDOTRECHIAL INTUBATION) 3. 10 IPD case sheets of Shalyatantra 4. 10 OPD case sheets of Shalyatantra	10
5	Viva Voce • Structured Viva • Questions (assessing clinical skills) on paper 1 - 30 Marks • Questions (assessing clinical skills) on paper 2 - 30 Marks • Communication Skill - 10 Marks	70
6	Marks of Internal assessment	30
Total Marks		**200**

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Abbreviations

Domain		T L Method		Level		Assessment		Integration	
CK	Cognitive/Knowledge	L	Lecture	K	Know	T-CS	Theory case study	V-RS	V RS
CC	Cognitive/Comprehension	L&PPT	Lecture with PowerPoint presentation	KH	Knows how	T-OBT	Theory open book test	V-KS	V KS
CAP	Cognitive/Application	L&GD	Lecture & Group Discussion	SH	Shows how	P-VIVA	Practical Viva	H-KC	H KC
CAN	Cognitive/Analysis	L_VC	Lecture with Video clips	D	Does	P-REC	Practical Recitation	H-SH	H SH
CS	Cognitive/Synthesis	REC	Recitation			P-EXAM	Practical exam	H-PK	H PK
CE	Cognitive/Evaluation	SY	Symposium			PRN	Presentation	H-SHL	H SHL
PSY-SET	Psychomotor/Set	TUT	Tutorial			P-PRF	Practical Performance	H-SP	H SP
PSY-GUD	Psychomotor/Guided response	DIS	Discussions			P-SUR	Practical Survey	H-KB	H-KB
PSY-MEC	Psychomotor/Mechanism	BS	Brainstorming			P-EN	Practical enact	H-Samhita	H-Samhita
PSY-ADT	Psychomotor Adaptation	IBL	Inquiry-Based Learning			P-RP	Practical Role play	V-DG	V DG
PSY-ORG	Psychomotor/Origination	PBL	Problem-Based Learning			P-MOD	Practical Model	V-RN	V RN
AFT-REC	Affective/ Receiving	CBL	Case-Based Learning			P-POS	Practical Poster	V-RS	V RS
AFT-RES	Affective/Responding	PrBL	Project-Based Learning			P-CASE	Practical Case taking	V-AT	V AT
AFT-VAL	Affective/Valuing	TBL	Team-Based Learning			P-ID	Practical identification	V-SW	V SW
AFT-SET	Affective/Organization	TPW	Team Project Work			P-PS	Practical Problem solving		
AFT-CHR	Affective/ characterization	FC	Flipped Classroom			QZ	Quiz		
PSY-PER	Psychomotor/perception	BL	Blended Learning			PUZ	Puzzles		
PSY-COR	Psychomotor/ Complex Overt Response	EDU	Edutainment			CL-PR	Class Presentation		
		ML	Mobile Learning			DEB	Debate		
		ECE	Early Clinical Exposure			WP	Word puzzle		
		SIM	Simulation			O-QZ	Online quiz		
		RP	Role Plays			O-GAME	Online game-based assessment		
		SDL	Self-directed learning			M-MOD	Making of Model		
		PSM	Problem-Solving Method			M-CHT	Making of Charts		
		KL	Kinaesthetic Learning			M-POS	Making of Posters		

		W	Workshops			C-INT	Conducting interview		
		GBL	Game-Based Learning			INT	Interactions		
		LS	Library Session			CR-RED	Critical reading papers		
		PL	Peer Learning			CR-W	Creativity Writing		
		RLE	Real-Life Experience			C-VC	Clinical video cases		
		PER	Presentations			SP	Simulated patients		
		D-M	Demonstration on Model			PM	Patient management problems		
		PT	Practical			CHK	Checklists		
		X-Ray	X-ray Identification			Mini-CEX	Mini-CEX		
		CD	Case Diagnosis			DOPS	DOPS		
		LRI	Lab Report Interpretation			CWS	CWS		
		DA	Drug Analysis			RS	Rating scales		
		D	Demonstration			RK	Record keeping		
		D-BED	Demonstration Bedside			COM	Compilations		
		DL	Demonstration Lab			Portfolios	Portfolios		
		DG	Demonstration Garden			Log book	Log book		
		FV	Field Visit			TR	Trainers report		
						SA	Self-assessment		
						PA	Peer assessment		
						360D	360-degree evaluation		
						PP-Practical	Practical		
						VV-Viva	Viva		
						DOAP	Demonstration Observation Assistance Performance		
						SBA	Scenario Based Assessment		
						CBA	Case based Assessment		
						S-LAQ	Structured LAQ		
						OSCE	Observed Structured Clinical Examination		
						OSPE	Observed Structured Practical Examination		
						DOPS	Direct observation of procedural skills		