

Subject Title:	SURGERY
Subject Code:	1PT1010303
Year	Third Year
Pre-requisite:	General Surgery, Plastic Surgery & Cardiothoracic Surgery (Section-A)

Objectives:

At the end of the course the candidate will be able to:

General Surgery & Plastic Surgery:

1. Describe the effects of surgical trauma and anesthesia in general
2. Classify, clinically evaluate and describe the surgical management in brief in a) wounds-ulcers b) burns
3. Describe pre-operative evaluation, surgical indications and various surgical approaches in various abdominal conditions and peripheral vascular conditions.
4. Recall the surgical approaches in the form of line diagram and will be able to describe the components of soft tissues cut to reach the target tissue, and the possible post-operative complications in movement.
5. Clinically evaluate post-operative abdominal conditions with special reference to the cardio-vascular and pulmonary function, describe post-operative management in brief.
6. Describe the management of head injury, spinal surgeries, intracranial tumors, peripheral nerve lesions and pain.

Cardiothoracic Surgery:

7. Describe types of incision, pre and post-operative assessment and complications of Cardio-thoracic surgery and their management.
8. Clinically evaluate post-operative cardio-vascular and pulmonary function status.
9. Read and interpret investigations including findings of the x-ray chest, CT scan and MRI scan.
10. Describe the effects of surgical trauma and anesthesia in general.

Teaching Scheme (Hours)			Evaluation Scheme (Marks)					
Lecture	Practical	Total	Theory(T)		Practical(P)		Total Marks	
			External Assessment	Internal Assessment	External Assessment	Internal Assessment		
							Theory	Practical
140	-	140	55	15	-	-	70	-

Subject Contents			
Sr. No.	Topic (General Surgery-60 Hrs, Plastic Surgery-20Hrs, Cardiothoracic Surgery-60 Hrs, Total-140Hrs)	Total Hours	Weight (%)
1	Acute infections, Inflammatory fever, bacteremia, septicemia, pyemia, toxemia. Specific types - Cellulitis - sites lymphangitis, abscess with special reference to hand infection, carbuncle.		
2	Specific types cont'd: Tetanus, gas gangrene, hospital infection, cross infection with modes of spread and prevention, General survey of chronic inflammations, Syphilis (reference to other venereal diseases) leprosy, actinomycosis.		
3	Surgical tuberculosis.		

4	General survey of trauma, pathology and clinical features of wound repair - primary, secondary and tertiary wound healing, Clean wounds, contaminated wounds and infectious wounds, Principles of treatment, survey of factors affecting wound healing, Ulcers and gangrene, Post-operative complications of abdominal surgery specifically chest, wound infection, oedema.		
5	Burns as a specific type of severe trauma, classification, early and late complications, management & reconstructive surgery - skin grafting as an example of plastic procedure.		
6	Types of skin grafting - take of grafting - healing of grafting, Post operative care of plastic surgery with specific role of physiotherapy, outline of surgical disorders of brain - head injuries. General survey of surgical disorders of spine and spinal cord problem of paraplegia, malignancy - spread and its behavior, various abdominal incisions, abdominal drainage tubes, catheters and nasogastric tubes, ward demonstration for an hour a day for a period of one week.		
7	Anesthesia, O.T. demonstrations.		
8	Neck, skin contractures and correction.		
9	Problems of trauma to hand and their management, Urinary tract infection.		
10	Principles of cineplasty, tendon transplant, cosmetic surgery types of grafts, surgery of hands with emphasis on management of traumatic and leprosy hand.		
11	Breast - surgery.		
Neuro Physiology : Neurophysiology, basis of tone, disorders of tone and posture, bladder control, muscle contraction, movement and pain.			
Clinical Features and management of the following			
1	Congenital and childhood disorders - hydrocephalus spina bifida.		
2	Trauma - Broad localization, first aid and management of sequelae of head injury and spinal cord injury.		
3	Diseases of the Spinal Cord - Craniovertebral junction anomalies, syringomyelia, cervical and lumbar disc disease, tumours.		
4	Peripheral nerve disorders - Peripheral nerve injuries, localization & management. Entrapment neuropathies.		
5	Intracranial tumours - Broad classification, signs and symptoms.		
6	Pre-operative Assessment and indications and contra - indication for neurosurgery.		
7	Management of pain, electrical stimulation of brain and spinal cord.		
8	Miscellaneous.		
Cardiothoracic Surgery			
1	Basic anatomy of chest wall, trachea and bronchial tree, lungs and bronchopulmonary segments, pleura and mediastinum.		
2	Physiology and mechanics of breathing and use of mechanical breathing - ventilator: (respirators).		
3	Pulmonary function tests.		

4	Investigation of lung diseases including endoscopies.		
5	Chest injury.		
6	Common suppurative diseases of lung - Bronchiectasis, lung abscess.		
7	Bronchogenic carcinoma		
8	Common surgeries of chest Thoracoplasty, pulmonary dissections, thoracotomy. Pneumothorax, hydrothorax-Pneumothorax, empyema.		
9	Common diseases of oesophagus and related conditions causing dysphagia.		
10	Surgery of portal hypertension.		
11	Surgery of pulmonary tuberculosis.		
12	Surgery of heart and great vessels.		
13	Basic anatomy of heart, great vessels.		
14	Investigation of patient undergoing cardiac surgery.		
15	Cardiac arrest, its management.		
16	Basic principles of open heart Surgery, Heart lung bypass (Extra Co-portal circulation)		
17	Common diseases of heart requiring surgery both congenital and acquired including open heart surgery.		
18	Common drugs used in cardiac surgery, its uses, side effects.		
19	Common vascular surgery, Embolectomy, vascular reconstructive surgery, (Thrombosis, Embolism, atherosclerotic and occlusive vascular diseases including coronary artery bypass)		
Clinical :			
1	Examination of patients as regards chest & heart diseases.		
2	Demonstration - Acquaintances with C.T. Surgery, Equipments, I.C.C.U.O.T. Radiology - X-ray studies - X-ray chest in various lung diseases.		
Total		140	