

Subject No. 2
MEDICAL AND SURGICAL NURSING- I
(Adult Including Geriatric)

Total Hours: 930

Theory: 210 Hours

Clinical/Practical: 720 Hours

AIM:

- This course is designed to help the student to develop an understanding and proficiency in caring for patients with medical surgical disorders in varieties of health care settings and at home.

OBJECTIVES:

At the end of course students will be able to develop:

- Understanding to describe the causes, signs and symptoms, treatment and prevention of medical surgical conditions.
- Skills in carrying out nursing techniques and procedures in keeping with scientific principles.
- Understanding of nursing process and provide nursing care to patients with various medical surgical conditions.

COURSE CONTENTS:

Unit I – Introduction:

- Introduction to medical surgical nursing – Evolution and trends of medical and surgical nursing.
- Review of concepts of health and illness disease concepts, causation, classification – international classification diseases (ICD – 10 or later version.), acute illness chronic & acute, Terminal illness, stages of illness.
- Review of concepts of comprehensive nursing care in medical surgical conditions based on nursing process.
- Role of nurse patient and family in care of adult patient.
- Role and responsibilities of a nurse in medical surgical settings: Out - patient department. In - patient department. Intensive care unit. Home and community settings.
- Introduction to medical surgical asepsis: Inflammation and infection. Immunity. Wound healing. Stress adaptation. Hemorrhage. Nutritional considerations.
- Care of surgical patients: Pre- operative. Intra operative. Post- operative.
 - Evidence based nursing

Unit II - Common signs and symptoms and management:

- Fluid and electrolyte imbalance. Vomiting. Dyspnoea and cough, respiratory obstruction. Fever. Shock. Unconsciousness, syncope. Pain. Incontinence and retention of urine. Constipation and diarrhea. Edema. Age related problems – geriatric problems.

Unit III - Nursing management of patients (adults including elderly) with respiratory problems:

- Review of Anatomy & Physiology of respiratory system. Nursing Assessment - History & Physical assessment.
- Etiology, Pathophysiology, Clinical manifestations, diagnosis, treatment modalities & Medical, surgical, Nutritional & nursing including elderly with: Upper Respiratory tract infections. Bronchitis.

Bronchiolitis. Asthma. Emphysema. Empyema. Atelectasis. Chronic obstructive Pulmonary Diseases (COPD). Bronchiectasis. Pneumonia. Pulmonary tuberculosis. Lung abscess. Pleural abscess, effusion. Cysts & Tumors. Chest injuries. Respiratory arrest. ARDS & insufficiency. Pulmonary embolism.

- Special therapies, alternative therapies, Nursing Procedures, Drugs used in treatment of respiratory disorders.
- **Recent advances in respiratory diagnostic procedures**

Unit IV - Nursing management of patients (adults including elderly) with disorders of digestive system:

- Review of Anatomy & Physiology of digestive system. Nursing Assessment –history & physical assessment.
- Etiology, pathophysiology, clinical manifestation, diagnosis, treatment modalities and medical, surgical, Nutritional & nursing management- Disorders of: Oral cavity- Lips, gums, tongue, salivary and teeth. Esophagus- inflammation, stricture, obstruction, bleeding & esophageal tumor. Stomach & Duodenum – hiatus hernia, gastritis, peptic & duodenal ulcer, bleeding, tumor, pyloric stenosis. Small intestinal inflammation and infection - enteritis, malabsorption syndrome, Obstruction, tumors perforation. Large Intestinal disorders - Colitis inflammations & infection, obstruction, Tumors and lump. Hernias. Appendix - Inflammation, mass, abscess, rupture. Anal & Rectum: Fistulas, fissures, Hemorrhoids and tumour. Peritonitis/ acute abdomen. Pancreas: inflammation, cyst abscess, tumors. Liver- Jaundice, hepatitis, cirrhosis, abscess, portal hypertension, hepatic failure and tumors. Biliary tract & gall bladder: Cholecystitis, cholelithiasis and tumors. Food poisoning and food allergies. Special therapies, alternative therapies
- Nursing Procedures. Drugs used in treatment of digestive system disorder.
- **Recent advances in GI diagnostic procedures**

Unit V - Nursing management of patients (adults including elderly) with blood and cardio vascular problems:

- Review of Anatomy & Physiology of blood and cardiovascular system. Nursing Assessment –history & physical assessment.
- Etiology, patho physiology, clinical manifestation, diagnosis, treatment modalities: medical, surgical, Nutritional & nursing management of:
- **Heart:** Coronary artery disease. Ischemic heart disease. Coronary atherosclerosis. Angina pectoris. Myocardial infarction. Valvular disorders of the heart: Congenital and acquired. Rheumatic heart diseases. Endocarditis, pericarditis, Myocarditis. Cardio myopathies. Cardiac dysrhythmias, Heart block. Congestive cardiac failure. Cor pulmonale, Pulmonary Odema, Cardiogenic shock, Cardiac tamponade. Cardiac emergencies and arrest. Cardio pulmonary resuscitation (CPR)
- Blood: Anemias. Polycythemia. Bleeding disorders, clotting factor defects and platelets defects. Thalassemia. Leukaemias. Leukopenias and agranulocytosis. Lymphomas. Myelomas.
- Special therapies: Blood transfusion, safety checks. Procedure and requirements, managements of adverse transfusion reaction, records for blood transfusion. Management and counseling of blood donors, phlebotomy procedure, and post donation management, Blood bank functioning and hospital transfusion committee. Bio – safety and waste management in relation to blood transfusion. Role of nurse in organ donation. Retrieval and banking.

- Special therapies, alternative therapies. Nursing Procedures. Drugs used in treatment of blood and cardio vascular disorder.
- **Pulse oximeter**
- **Estimation of blood glucose by glucometer**
- **Effects of stress on health**

Unit VI - Nursing management of patients (adults including elderly) with genito – urinary problems:

- Review of Anatomy & Physiology of genito-urinary systems. Nursing Assessment –history & physical assessment.
- Etiology, patho-physiology, clinical manifestation, diagnosis, treatment modalities and medical, surgical, dietetics & nursing management of: Nephritis. Nephrotic syndrome. Nephrosis. Renal calculus. Tumours. Acute renal failure. Chronic renal failure. End stage renal disease. Dialysis, renal transplant. Congenital disorders, urinary infections. Benign prostate hypertrophy. Kidney: Polycystic kidney. Disorders of ureter, urinary bladder- urethra inflammation, infections, stricture, obstructions, tumors, prostrate.
- Special therapies, alternative therapies. Nursing Procedures. Drugs used in treatment of genitor – urinary disorder.
- **Recent advances in genito urinary diagnostic procedures.**

Unit VII - Nursing management of disorders of male (adults including elderly) with reproductive system:

- Review of anatomy and Physiology of male reproductive system. Nursing assessment history and physical assessment.
- Etiology, pathophysiology, clinical manifestations, diagnosis, treatment modalities and medical, surgical dietetics and nursing management of disorders of male reproductive system. Congenital malformations: cryptorchidism. Infections. Hypospadiasis. Epispadiasis. Infection Testis and adjacent structure. Penis. Prostate: inflammation, infection hypertrophy, tumor. Sexual Dysfunction. Infertility. Contraception. Breast, gynecomastia, tumor. Climacteric changes. Special therapies, alternative therapies.
- Nursing procedures. Drugs used in treatment of disorders of male reproductive system.

Unit VIII - Nursing management of patient (adults including elderly) with disorders of endocrine system

- Review of anatomy and physiology of endocrine system. Nursing assessment: history and physical assessment.
- Etiology, pathophysiology, clinical manifestation, diagnosis, treatment modalities and medical, surgical, dietetics and nursing management of: Disorders of pituitary. Disorders of thyroid and parathyroid. Adrenal tumor. Diabetes mellitus. Diabetes insipidus. special therapies, alternative therapies
- Nursing procedures. Drugs used in treatment of disorders of endocrine system.
- **Recent advances in endocrine diagnostic procedures.**

Unit IX - Nursing management of patients (adults including elderly) with disorders of Integumentary system:

- Review of anatomy and physiology of skin and its appendages. Nursing assessment history and physical assessment.
- Etiology, Pathophysiology, clinical manifestation, diagnosis, treatment modalities and medical, surgical, dietetics and nursing management of disorders of skin and its appendages. Lesions and abrasions. Infection and infestations: Dermatitis. Dermatoses; infectious and non infectious “inflammatory dermatoses. Acne vulgaris Allergies and Eczema. Psoriasis. Malignant melanoma. Alopecia. Leucoderma. Care of patient with Skin surgery.
- Special therapies, alternative therapies. Nursing procedures. Drugs used in treatment of disorders of Integumentary system.
- **Recent advances in Integumentary diagnostic procedures.**

Unit X - Nursing management of patients (adults including elderly) with musculoskeletal problems:

- Review of anatomy and physiology of Musculoskeletal system. Nursing assessment history and physical assessment.
- Etiology, Pathophysiology, clinical manifestation, diagnosis, treatment modalities and medical, surgical, dietetics and nursing management of: Disorders of: Muscles, ligaments and joints-inflammation, infection trauma. Bones-inflammation, infection, dislocation, sprain, fracture, tumor & trauma. Osteomalacia and osteoporosis. Arthritis, Congenital deformities, Spinal column – defects and deformities, tumor. Prolapsed inter vertebral, disc. Pot’s spine. Paget’s disease.
- Amputation. Prosthesis. Transplant and replacement surgeries. Rehabilitation.
- Special Therapies, alternative therapies. Nursing procedures. Drug used in treatment of disorders of musculoskeletal system.
- **Recent advances in musculoskeletal diagnostic procedures.**

Unit XI - Nursing management of Patient (adults including elderly) with Immunological problems:

- Review of Immune system. Nursing Assessment- History and physical assessment.
- Etiology, Pathophysiology, clinical manifestations, diagnosis treatment modalities and medical, surgical, dietetics and nursing management of: Immunodeficiency disorder. Primary immuno deficiency. Phagocytic dysfunction. B-cell and T-cell deficiencies. Secondary immunodeficiency. Acquired immunodeficiency syndrome (AIDS). Incidence of HIV & AIDS. Epidemiology. Transmission-prevention of Transmission. Standard safely precautions. Roll of nurse, counseling. Health education and home care consideration. National AIDS control program NACO various. National and international agencies. Infection control program. Rehabilitation.
- Special therapies, alternative therapies. Nursing procedures. Drugs used in treatment of disorders of immunological systems.
- **Social stigma & Rehabilitation**

Unit XII - Nursing management of patient (adults including elderly) with Communicable Diseases:

- Overview of infectious disease, the infectious process
- Nursing Assessment- History and physical assessment
- Epidemiology, infectious process, clinical manifestations, diagnosis, treatment,
- Prevention and dietetics. Control and eradication of common communicable diseases: Tuberculosis. Diarrheal diseases. Hepatitis A-E. Herpes. Chickenpox. Smallpox. Typhoid. Meningitis. Gas

gangrene. Leprosy. Dengue. Plague. Malaria. Diphtheria. Pertussis. Poliomyelitis. Measles. Mumps. Influenza. Tetanus. Yellow fever. Filariasis. HIV. AIDS. communicable diseases

- Reproductive Tract Infections: Special infection control measures: Notification, Isolation, Quarantine, Immunization, Infectious Disease Hospitals
- Special therapies, Alternative therapies. Nursing procedures Drugs used in treatment of above listed diseases.
- Dengue
- Swine flue
- Leptospirosis
- Ebola
- **Zika virus**

Unit XIII - Peri Operative nursing:

- Organization and physical set up of the operation theatre (OT): Classification. O.T. Design
- Staffing: Members of the OT team. Duties and responsibility of nurse in OT.
- Principles of health and operating room attire: Instruments. Sutures and suture materials. Equipments. O.T. tables and sets for common surgical procedure. Scrubbing procedures. Gowning and gloving. Preparation of O.T. sets.
- Monitoring the patients Maintenance of therapeutics environment in O.T.
- Standard safety measures: Infection control: fumigation, disinfection and sterilization. Biomedical waste management. Prevention of accidents and hazards in O.T.
- **Anesthesia:** Types, Methods of administration, Effects and stages, Equipment, Drugs.
- Cardio pulmonary Resuscitation (CPR)
- Pain management techniques.
- Legal Aspects during surgical procedures.

MEDICAL AND SURGICAL NURSING– I (ADULT INCLUDING GERIATRICS)

Unit No. & Hours	Objectives	Contents With Distributed Hours						
		Must Know 60%			Desirable to Know 30%		Nice to Know 10%	
I (10 Hrs)	At the end of unit students are able to: Knowledge: Understand and describe the concept of health and illness. Skill: Render comprehensive care to the client. Attitude: Make self aware about the trends in nursing.	<ul style="list-style-type: none"> • Introduction: Review of concepts of health and illness disease concepts, causation, classification – international classification diseases (ICD – 10 or later version.), acute illness chronic & acute, Terminal illness, stages of illness. • Review of concepts of comprehensive nursing care in medical surgical conditions based on nursing process • Role and responsibilities of a nurse in medical surgical settings: Out - patient department. In - patient department. Intensive care unit. Home and community settings. (6 Hours) 			<ul style="list-style-type: none"> • Role of nurse patient and family in care of adult patient. • Introduction to medical surgical asepsis- Inflammation and infection. Immunity. Wound healing. • Evidence based nursing • Care of surgical patients: Pre-operative. Intra-operative. Post-operative. (3 Hours) 		<ul style="list-style-type: none"> • Introduction to medical surgical nursing – Evolution and trends of medical and surgical nursing. (1 Hr) 	
	Course outcome	Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
	CO 1: Describe the concepts of health and illness and its causation.	3	3	3	3	3	3	3
	CO 2: Describe International classification of diseases(ICD)	2	2	2	2	2	2	2
	CO 3: Determine acute and chronic illness, terminal illness and stages of illness.	3	3	3	2	2	3	3

	CO 4: Explain concept of comprehensive nursing care in medical surgical nursing based on nursing process.	3	3	2	2	2	3	3	
	CO 5: Describe role and responsibilities of nurse in medical surgical settings, intensive care unit, home and community settings	3	3	3	3	3	3	3	
	Co 6: Describe role of nurse in patient and family in care of adult patient.	3	3	3	3	3	3	3	
	CO 7: Explain medical surgical asepsis, inflammation and infection.	3	3	3	3	3	3	3	
	CO 8: Explain wound healing in detail.	3	3	3	3	3	3	3	
	Co 9: Determine evidence based nursing.	3	3	2	2	2	3	3	
	CO10: Determine perioperative care nursing.	3	3	2	2	2	3	3	
	CO11: Explain evolution and trends in medical surgical nursing.	3	3	2	2	2	3	3	
II (15 Hrs)	At the end of unit students are able to: Knowledge: Know and identify the common signs and symptoms of various disease conditions. Skill: Assess the client's need and plan nursing care according to assessment. Attitude: Develop the habit of planning need based nursing care.	<ul style="list-style-type: none"> • Common signs and symptoms and management: Fluid and electrolyte imbalance, Vomiting. Dyspnea and cough,. Fever. Shock. Pain. (9 Hr) 				<ul style="list-style-type: none"> • Unconsciousness, • Syncope. • Incontinence • Edema. • respiratory obstruction (4 Hr) 		<ul style="list-style-type: none"> • Age related problems: geriatric. (2 Hr) 	
	Course outcome	Program outcome							
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher	
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	

	CO 1: Describe the common sign and symptoms in fluid and electrolytes imbalance, vomiting, dyspnea, cough, fever, unconsciousness, syncope, incontinence, edema and respiratory obstruction	3	3	2	2	2	3	3	
	CO 2: Explain management of fluid and electrolytes imbalance, vomiting, dyspnea, cough, fever, unconsciousness, syncope, incontinence, edema and respiratory obstruction	3	3	2	2	2	3	3	
	CO 3: Develop nursing care plan for fluid and electrolytes imbalance, vomiting, dyspnea, cough, fever, unconsciousness, syncope, incontinence, edema and respiratory obstruction	3	3	2	2	2	3	3	
III (20Hrs)	<p>At the end of unit students are able to:</p> <p>Knowledge: Understand and explain the anatomy, physiology, etiology, pathophysiology and diagnostic assessment of client with respiratory tract problems.</p> <p>Skill: Perform physical assessment of client with respiratory problems and plan nursing care.</p> <p>Attitude: Utilize theoretical knowledge in practice of nursing.</p>	<ul style="list-style-type: none"> • Nursing management of patients (adults including elderly) with respiratory problems: Nursing Assessment - History & Physical assessment. • Etiology, Pathophysiology, Clinical manifestations, diagnosis, treatment modalities including elderly with: Upper Respiratory tract infections. Bronchitis. Bronchiolitis. Asthma. Emphysema. Empyema. Atelectasis . Chronic obstructive. Pulmonary Diseases (COPD). Bronchiectasis. Pneumonia. Pulmonary tuberculosis. Lung abscess. Pleural abscess, effusion. Cysts & Tumors. Chest injuries. Respiratory arrest, ARDS & insufficiency. Pulmonary embolism Nursing Procedures (12 hours) 			<ul style="list-style-type: none"> • Review of Anatomy & Physiology of respiratory system. • Drugs used in treatment of respiratory disorders. • Recent advances in respiratory diagnostic procedures (6 hours) 			<ul style="list-style-type: none"> • Special therapies, alternative therapies: (2 Hr) 	
	Course outcome	Program outcome							

	Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO 1: Describe the anatomy and physiology of respiratory system.	3	3	2	3	3	3	2
CO2: Identify common respiratory problems.	3	3	2	3	3	3	2
CO3: Explain nursing assessment including history and physical assessment.	3	3	2	3	3	3	3
CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Upper Respiratory tract infections, Bronchitis. Bronchiolitis. Asthma. Emphysema. Empyema. Atelectasis. Chronic obstructive. Pulmonary Diseases (COPD). Bronchiectasis. Pneumonia. Pulmonary tuberculosis. Lung abscess. Pleural abscess, effusion. Cysts & Tumors. Chest injuries. Respiratory arrest, ARDS & insufficiency. Pulmonary embolism	3	3	2	3	3	3	3
CO5: Develop nursing care plan for above diseases	3	3	3	3	3	3	3
CO 6: Explain special therapies, alternative therapies in respiratory problems.	3	3	3	3	3	3	3

<p>IV (30Hrs)</p>	<p>At the end of unit students are able to:</p> <p>Knowledge: Understand and explain the anatomy, physiology, etiology, pathophysiology and diagnostic assessment of client with elementary tract problems.</p> <p>Skill: Perform physical assessment of client with elementary tract problems and plan nursing care.</p> <p>Attitude: Utilize theoretical knowledge in practice of nursing.</p>	<ul style="list-style-type: none"> • Nursing management of patients (adults including elderly) with disorders of digestive system: Nursing Assessment –history & physical assessment. • Etiology, pathophysiology, clinical manifestation, diagnosis, treatment modalities and medical- Disorders of: Oral cavity- Lips, gums, tongue, salivary glands and teeth. Esophagus- inflammation, stricture, obstruction, bleeding & esophageal tumor. Stomach & Duodenum – hiatus hernia, gastritis, peptic & duodenal ulcer, bleeding, tumor pyloric stenosis. Small intestinal inflammation and infection - enteritis, mal absorption syndrome, Obstruction, tumors perforation. Large Intestinal disorders - Colitis inflammations & infection, obstruction, Tumors and lump. Hernias. Appendix - Inflammation, mass, abscess, rupture. Anal & Rectum: Fistulas, fissures, Hemorrhoids and tumor. Peritonitis/ acute abdominal. Pancreas: inflammation, cyst abscess, tumors. Liver- Jaundice, hepatitis, cirrhosis, abscess, portal hypertension, hepatic failure and tumors. Biliary tract & gall bladder: Cholecystitis, cholelithiasis and tumors. Nursing Procedures. (18 hours) 	<ul style="list-style-type: none"> • Review of Anatomy & Physiology of digestive system. • Drugs used in treatment of digestive system disorder. • Recent advances in GI diagnostic procedures (9 Hours) 	<ul style="list-style-type: none"> • Special therapies, alternative therapies. (3 Hr)
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Course outcome	Program outcome						
	Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Student will be able to : CO 1: Describe the anatomy and physiology of digestive system.	3	3	2	2	2	2	3
CO2: Identify common digestive problems.	3	3	2	2	2	2	3
CO3: Explain nursing assessment including history and physical assessment.	3	3	2	2	2	2	3

	CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Oral cavity- Lips, gums, tongue, salivary glands and teeth. Esophagus- inflammation, stricture, obstruction, bleeding & esophageal tumor. Stomach & Duodenum – hiatus hernia, gastritis, peptic & duodenal ulcer, bleeding, tumor pyloric stenosis. Small intestinal inflammation and infection - enteritis, mal absorption syndrome, Obstruction, tumors perforation. Large Intestinal disorders - Colitis inflammations & infection, obstruction, Tumors and lump. Hernias. Appendix - Inflammation, mass, abscess, rupture. Anal & Rectum: Fistulas, fissures, Hemorrhoids and tumor. Peritonitis/ acute abdominal. Pancreas: inflammation, cyst abscess, tumors. Liver- Jaundice, hepatitis, cirrhosis, abscess, portal hypertension, hepatic failure and tumors. Biliary tract & gall bladder: Cholecystitis, cholelithiasis and tumors.	3	3	2	2	2	2	3
	CO5: Develop nursing care plan for above diseases	3	3	2	2	2	2	3
	CO 6: Explain special therapies, alternative therapies in digestive system problems.	3	2	2	2	2	2	3
V (30 Hrs)	At the end of unit students are able to Knowledge: Understand and describe the signs and symptoms of client with cardio vascular problems. Skill: Assess the client correctly and plan & implement nursing interventions.	<ul style="list-style-type: none"> • Nursing management of patients (adults including elderly) with blood and cardio vascular problems: Nursing Assessment – history & physical assessment. • Etiology, patho physiology, clinical manifestation, diagnosis, treatment modalities: medical, surgical, Nutritional & nursing management of: • Heart: Coronary artery disease. Ischemic heart disease. Coronary atherosclerosis. Angina 				<ul style="list-style-type: none"> • Review of Anatomy & Physiology of blood and cardiovascular system. • Management and counseling of blood donors, 		<ul style="list-style-type: none"> • Special therapies, alternative therapies. • Role of nurse in organ donation. Retrieval and banking. (3 Hr)

	<p>Attitude: Incorporate this knowledge in nursing practice and provide psychological support to the client and family members.</p>	<p>pectoris. Myocardial infarction. Valvular disorders of the heart: Congenital and acquired. Rheumatic heart diseases. Endocarditis, pericarditis, Myocarditis. Cardio myopathies. Cardiac dysrhythmias, Heart block. Congestive cardiac failure. Cor pulmonale, pulmonary edema, Cardiogenic shock, Cardiac tamponade. Cardiac emergencies and arrest. Cardio pulmonary resuscitation (CPR)</p> <ul style="list-style-type: none"> • Blood: Anemia. Polycythemia. Bleeding disorders, clotting factor defects and platelets defects. Thalassemia. Leukaemias. Leucopenia and agranulocytosis. Lymphomas. Myelomas. • Special therapies: Blood transfusion, safety checks. Procedure and requirements, managements of adverse transfusion reaction, records for blood transfusion. Bio – safety and waste management in relation to blood transfusion. Nursing Procedures. (18 Hours) 				<p>phlebotomy procedure, and post donation management, Blood bank functioning and hospital transfusion committee.</p> <ul style="list-style-type: none"> • Drugs used in treatment of blood and cardio vascular disorder. • Pulse Oximeter • Effects of stress on cardiovascular health • Recent advances in cardio vascular diagnostic procedures. • Raynaud’s disease (9 Hours) 	
Course outcome	Program outcome						
	Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO 1: Describe the anatomy and physiology of blood and cardiovascular system.	3	3	2	2	2	2	3
CO2: Identify common blood and cardiovascular system problems.	3	3	2	2	2	2	3
CO3: Explain nursing assessment including history and physical assessment.	3	3	2	2	2	2	3

	CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Coronary artery disease. Ischemic heart disease. Coronary atherosclerosis. Angina pectoris. Myocardial infarction. Valvular disorders of the heart: Congenital and acquired. Rheumatic heart diseases. Endocarditis, pericarditis, Myocarditis. Cardio myopathies. Cardiac dysarrhythmias, Heart block. Congestive cardiac failure. Cor pulmonale, pulmonary edema, Cardiogenic shock, Cardiac tamponade. Cardiac emergencies and arrest	3	3	2	2	2	3	3
	CO5: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Anemia. Polycythemia. Bleeding disorders, clotting factor defects and platelets defects. Thalassemia. Leukaemias. Leucopenia and agranulocytosis. Lymphomas, Myelomas, Raynaud's disease	3	3	2	2	2	3	3
	CO6: Develop nursing care plan for above diseases	3	3	2	2	2	3	3
	CO7: Explain types of blood transfusion and its adverse reaction.	3	3	3	2	2	3	3
	CO8: Describe nursing responsibilities and recording and reporting in blood transfusion.	3	3	2	2	2	3	3
	CO 9: Explain special therapies, alternative therapies in blood and cardiovascular system problems.	3	2	2	2	2	3	3
VI (10Hrs)	At the end of unit students are able to Knowledge: Understand and describe the signs and symptoms of client with genito urinary tract	<ul style="list-style-type: none"> • Nursing management of patients (adults including elderly) with genito – urinary problems: Nursing Assessment –history & physical assessment. • Etiology, pathophysiology, clinical 			<ul style="list-style-type: none"> • Review of Anatomy & Physiology of genito-urinary systems. 		<ul style="list-style-type: none"> • Special therapies, alternative therapies. (1 Hr) 	

<p>disorders and plan need based nursing care.</p> <p>Skill: Acquire proficiency in planning and providing comprehensive care to the client with genito urinary disorders.</p> <p>Attitude: Appreciate the psychological feelings of the client and relatives.</p>	<p>manifestation, diagnosis, treatment modalities and medical, surgical, dietetics & nursing management of: Nephritis. Nephrotic syndrome. Nephrosis. Renal calculus. Tumors. Acute renal failure. Chronic renal failure. End stage renal disease. Dialysis, renal transplant. Congenital disorders, urinary infections benign prostate hypertrophy. Kidney: Polycystic kidney. Disorders of ureter, urinary bladder- urethra inflammation, infections, stricture, obstructions, tumors, prostate. Nursing Procedures. (6 Hours)</p>		<ul style="list-style-type: none"> • Drugs used in treatment of genito – urinary disorder. • Recent advances in genito urinary diagnostic procedures. (3 Hours) 				
Course outcome	Program outcome						
	Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO 1: Describe the anatomy and physiology of genito-urinary system.	3	3	2	2	2	3	3
CO2: Identify common genitor-urinary system problems.	3	3	2	2	2	3	3
CO3: Explain nursing assessment including history and physical assessment.	3	3	2	2	2	3	3
CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Nephritis. Nephrotic syndrome. Nephrosis. Renal calculus. Tumors. Acute renal failure. Chronic renal failure. End stage renal disease. Dialysis, renal transplant. Congenital disorders, urinary infections benign prostate hypertrophy. Kidney: Polycystic kidney. Disorders of ureter, urinary bladder- urethra inflammation, infections, stricture, obstructions and tumors.	3	3	2	2	2	3	3

	CO5: Develop nursing care plan for above diseases	3	3	2	2	2	3	3	
	CO 6: Explain special therapies, alternative therapies in genitor-urinary problems.	3	3	2	2	2	3	3	
VII (5 Hrs)	At the end of unit the students are able to Knowledge: Understand and explain the pathophysiology, signs and symptoms and medical and nursing management of patient with reproductive system. Skill: Assess the client and plan and implement the nursing care. Attitude: Understanding the feeling of the patients with congenital anomalies and sexual dysfunction.	<ul style="list-style-type: none"> • Nursing management of disorders of male (adults including elderly) with reproductive system: Nursing assessment history and physical assessment. • Etiology, pathophysiology, clinical manifestations, diagnosis, treatment modalities and medical, surgical dietetics and nursing management of disorders of male reproductive system. Congenital malformations: cryptorchidism. Infections. Hypospadiasis, Epispadiasis. Infection Testis and adjacent structure. Penis. Prostate: infection, inflammation, hypertrophy, tumor. Sexual Dysfunction. Infertility. Contraception. Breast, gynecomastia, tumor. Climacteric changes. • Nursing procedures. (3 Hrs) 			<ul style="list-style-type: none"> • Review of anatomy and Physiology of male reproductive system • Drugs used in treatment of disorders of male reproductive system. (1 Hr) 			<ul style="list-style-type: none"> • Special therapies, alternative therapies. (1 Hr) 	
	Course outcome	Program outcome							
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher	
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	
	CO 1: Describe the anatomy and physiology of of male reproductive system.	3	3	2	2	2	3	3	
	CO2: Identify common male reproductive system problems.	3	3	2	2	2	3	3	
	CO3: Explain nursing assessment including history and physical assessment.	3	3	2	2	2	3	3	

	CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Congenital malformations: cryptorchidism. Infections. Hypospadiasis, Epispadiasis. Infection Testis and adjacent structure. Penis. Prostate: infection, inflammation, hypertrophy, tumor. Sexual Dysfunction. Infertility. Contraception. Breast, gynecomastia, tumor.	3	3	2	2	2	3	3
	CO5: Determine climenteric changes in male reproductive system.	3	3	2	2	2	3	3
	CO6: Develop nursing care plan for above diseases	3	3	2	2	2	3	3
	CO 7: Explain special therapies, alternative therapies in male reproductive system problems.	3	3	2	2	2	3	3
VIII (10 Hrs)	At the end of unit students are able to Knowledge: Understand and describe clinical manifestations, pathophysiology and management of patient with endocrine disorders. Skill: Identify the needs of patient with endocrine disorders. Attitude: Incorporate this knowledge in nursing practice.	<ul style="list-style-type: none"> • Nursing management of patient (adults including elderly) with disorders of endocrine system: • Nursing assessment: history and physical assessment. • Etiology, pathophysiology, clinical manifestation, diagnosis, treatment modalities and medical, surgical, dietetics and nursing management of Disorders of: Pituitary. Thyroid and parathyroid. Adrenal tumor. Diabetes mellitus. Diabetes insipidus. Nursing procedures. (6 Hrs) 				<ul style="list-style-type: none"> • Review of anatomy and physiology of endocrine system. • Drugs used in treatment of disorders of endocrine system. • Recent advances in endocrine diagnostic procedures. (3 Hrs) 		<ul style="list-style-type: none"> • Special therapies, alternative therapies. (1 Hr)
	Course outcome	Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7

	CO 1: Describe the anatomy and physiology of endocrine system.	3	3	2	2	2	3	3
	CO2: Identify common endocrine system problems.	3	3	2	2	2	3	3
	CO3: Explain nursing assessment including history and physical assessment.	3	3	2	2	2	3	3
	CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Disorders of: Pituitary. Thyroid and parathyroid. Adrenal tumor. Diabetes mellitus. Diabetes insipidus.	3	3	2	2	2	3	3
	CO5: Develop nursing care plan for above diseases	3	3	2	2	2	3	3
	CO 6: Explain special therapies, alternative therapies in endocrine system problems.	3	3	2	2	2	3	3
IX (10Hrs)	<p>At the end of the unit students are able to</p> <p>Knowledge: Explain the disorders of integumentary system.</p> <p>Skill: Identify the disorders of integumentary system.</p> <p>Attitude: Appreciate the feelings of client suffering from integumentary system and his family members</p>	<ul style="list-style-type: none"> • Nursing management of patients (adults including elderly) with disorders of Integumentary system: Nursing assessment history and physical assessment. • Etiology, Pathophysiology, clinical manifestation, diagnosis, treatment modalities and medical, surgical, dietetics and nursing management of disorders of skin and its appendages. Lesions and abrasions. Infection and infestations: Dermatitis. Dermatoses; infectious and non infectious, inflammatory dermatosis. Acne vulgaris. Allergies and Eczema. Psoriasis. Alopecia. Leucoderma. Nursing procedures. (6 Hrs) 				<ul style="list-style-type: none"> • Review of anatomy and physiology of skin and its appendages. • Care of patient with skin surgery. • Malignant melanoma. • Drugs used in treatment of disorders of Integumentary system. • Recent advances in Integumentary diagnostic procedures. • (3 Hours) 		<ul style="list-style-type: none"> • Special therapies, alternative therapies. (1 Hr)

	Course outcome	Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
	CO 1: Describe the anatomy and physiology of skin and its appendages.	3	3	2	2	2	3	3
	CO2: Identify common skin and its appendages problems.	3	3	2	2	2	3	3
	CO3: Explain nursing assessment including history and physical assessment.	3	3	2	2	2	3	3
	CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of disorders of skin and its appendages. Lesions and abrasions. Infection and infestations: Dermatitis. Dermatitis; infectious and non infectious, inflammatory dermatosis. Acne vulgaris. Allergies and Eczema. Psoriasis. Alopecia. Leucoderma.	3	3	2	2	2	3	3
	CO5: Develop nursing care plan for above diseases	3	3	2	2	2	3	3
	CO6: Explain nursing management in patient undergoing skin surgery.	3	3	2	2	2	3	3
	CO 7: Explain special therapies, alternative therapies in integumentary system problems.	3	3	2	2	2	3	3
X (15 Hrs)	At the end of the unit students are able to Knowledge: Understand and	<ul style="list-style-type: none"> Nursing management of patients (adults including elderly) with musculoskeletal problems: Nursing assessment history and 			<ul style="list-style-type: none"> Review of anatomy and physiology of 		<ul style="list-style-type: none"> Special Therapies, alternative therapies. 	

<p>explain etiology, clinical manifestations, Pathophysiology, diagnostic tests and medical & nursing management of client with musculoskeletal disorders.</p> <p>Skill: Render comprehensive care to the client suffering with musculoskeletal disorders.</p> <p>Attitude: Appreciate the sufferings of congenital musculoskeletal anomalies and contribute effectively in rehabilitation.</p>	<p>physical assessment.</p> <ul style="list-style-type: none"> Etiology, Pathophysiology, clinical manifestation, diagnosis, treatment modalities and medical, surgical, dietetics and nursing management of Disorders of: Muscles, ligaments and joints-inflammation, infection trauma. Bones-inflammation, infection, dislocation, sprain, fracture, tumor & trauma. Osteomalacia and osteoporosis. Arthritis, Congenital deformities, Spinal column – defects and deformities, tumor, Prolapsed inter vertebral, disc. Pott’s spine. Paget’s disease. Nursing procedures. <p>(9 Hours)</p>		<p>musculoskeletal system.</p> <ul style="list-style-type: none"> Drug used in treatment of disorders of musculoskeletal system. Rehabilitation. Recent advances in musculoskeletal diagnostic procedures. <p>(4 Hrs)</p>		<ul style="list-style-type: none"> Amputation, Prosthesis, transplant and replacement surgeries. <p>(2 Hrs)</p>		
<p>Course outcome</p>	<p>Program outcome</p>						
	<p>Clinician/Nurse educator</p>	<p>Professional</p>	<p>Communicator</p>	<p>Leader and member of the health care team and system</p>	<p>Lifelong learner</p>	<p>Critical thinker</p>	<p>Researcher</p>
	<p>PO1</p>	<p>PO2</p>	<p>PO3</p>	<p>PO4</p>	<p>PO5</p>	<p>PO6</p>	<p>PO7</p>
<p>CO 1: Describe the anatomy and physiology of musculoskeletal system</p>	<p>3</p>	<p>3</p>	<p>2</p>	<p>2</p>	<p>2</p>	<p>3</p>	<p>3</p>
<p>CO2: Identify common musculoskeletal system problems.</p>	<p>3</p>	<p>3</p>	<p>2</p>	<p>2</p>	<p>2</p>	<p>3</p>	<p>3</p>
<p>CO3: Explain nursing assessment including history and physical assessment.</p>	<p>3</p>	<p>3</p>	<p>2</p>	<p>3</p>	<p>2</p>	<p>3</p>	<p>3</p>

	CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Disorders of: Muscles, ligaments and joints-inflammation, infection trauma. Bones-inflammation, infection, dislocation, sprain, fracture, tumor & trauma. Osteomalacia and osteoporosis. Arthritis , Congenital deformities, Spinal column – defects and deformities, tumor,. Prolapsed inter vertebral, disc. Pott’s spine. Paget’s disease	3	3	2	3	2	3	3
	CO5: Develop nursing care plan for above diseases	3	3	2	3	2	3	3
	CO 6: Explain special therapies, alternative therapies in musculoskeletal system problems.	3	3	2	2	2	3	3
XI (10 Hrs)	<p>At the end of the unit students are able to</p> <p>Knowledge: Describe the etiology, pathophysiology, clinical manifestations diagnostic measures and management of patients (adults including elderly) with disorders of immunological systems.</p> <p>Skill: Identify the patients with immunological disorders and render effective care to immunologically compromised patients.</p> <p>Attitude: Be sensitive to the psychological needs related to social discriminations of immunologically compromised patients.</p>	<ul style="list-style-type: none"> • Nursing management of Patient (adults including elderly) with Immunological problems: Nursing Assessment- History and physical assessment. • Etiology, Pathophysiology, clinical manifestations, diagnosis treatment modalities and medical, surgical, dietetics and nursing management of Immunodeficiency disorder. Primary immunodeficiency. Phagocytic dysfunction. B-cell and T-cell deficiencies. Acquired immunodeficiency syndrome (AIDS). Incidence of HIV & AIDS. Transmission-prevention of Transmission. Standard safely precautions. Roll of nurse, Health education and home care consideration. Infection control program. Nursing procedures. <p>(6 Hrs)</p>			<ul style="list-style-type: none"> • Review of Immune system. • National AIDS control program NACO various • National and international agencies. • Counseling • Secondary immune deficiencies. • Drugs used in treatment of disorders of immunological systems. • Social stigma & Rehabilitation <p>(3 hours)</p>			<ul style="list-style-type: none"> • Epidemiology. • Special therapies, alternative therapies. <p>(1 Hrs)</p>

	Course outcome	Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
	CO 1: Describe the anatomy and physiology of Immune system.	3	3	2	2	2	3	3
	CO2: Identify common Immune system problems.	3	3	2	2	2	3	3
	CO3: Explain nursing assessment including history and physical assessment.	3	3	2	3	2	3	3
	CO 4: Describe etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Primary immunodeficiency. Phagocytic dysfunction. B-cell and T-cell deficiencies. Acquired immunodeficiency syndrome (AIDS). Incidence of HIV & AIDS.	3	3	3	3	2	3	3
	CO5: Explain role of nurse in standard safety precautions.	3	3	3	3	3	3	3
	CO6: Describe National AIDS control program NACO	3	3	3	3	3	3	3
	CO7: Explain social stigma and rehabilitation of HIV patients	3	3	3	3	3	3	3
	CO8: Develop nursing care plan for above diseases	3	3	2	3	2	3	3
	CO 9: Explain special therapies, alternative therapies in immune system problems	3	3	2	2	2	3	3
XII (20Hrs)	At the end of the unit students are able to Knowledge: Describe the etiology,	<ul style="list-style-type: none"> Nursing management of patient (adults including elderly) with Communicable Diseases: Nursing Assessment- History and 			<ul style="list-style-type: none"> Overview of infectious disease, the infectious 		<ul style="list-style-type: none"> Special therapies, Alternative 	

<p>pathophysiology, clinical manifestations, diagnostic measures and management of patients (adults including elderly) with communicable diseases.</p> <p>Skill: Identify the clients with communicable diseases and renders efficient care to the clients suffering from various communicable diseases.</p> <p>Attitude: Pay special attention to prevent the spread of communicable diseases.</p>	<p>physical assessment. Epidemiology, infectious process, clinical manifestations, diagnosis, treatment. Prevention and dietetics. Control and eradication of common communicable diseases: Tuberculosis. Diarrheal diseases. Hepatitis A-E. Herpes. Chickenpox. Smallpox. Typhoid. Meningitis. Gas gangrene. Leprosy. Dengue. Plague. Malaria. Diphtheria. Pertussis. Poliomyelitis. Measles. Mumps. Influenza. Tetanus. Yellow fever. Filariasis HIV, AIDS. Communicable diseases. Reproductive Tract Infections. Nursing procedures. (12Hrs)</p>	<p>process.</p> <ul style="list-style-type: none"> • Special infection control measures; Notification, Isolation, Quarantine, Immunization, Infectious Disease Hospitals. • Drugs used in treatment of Communicable diseases. <ul style="list-style-type: none"> • Dengue • Swine flue • Leptospirosis • Ebola • Zika virus <p>(6 hours)</p>	<p>therapies. (2 Hr)</p>
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Course outcome	Program outcome						
	Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Student will be able to : CO1: Describe epidemiology and infectious process.	3	3	2	3	2	3	3
CO2: Explain common communicable diseases and its prevention.	3	3	2	3	2	3	3

	CO3: Explain etiology, Pathophysiology, clinical manifestation, diagnosis and treatment of Tuberculosis. Diarrheal diseases. Hepatitis A-E. Herpes. Chickenpox. Smallpox. Typhoid. Meningitis. Gas gangrene. Leprosy. Dengue. Plague. Malaria. Diphtheria. Pertussis. Poliomyelitis. Measles. Mumps. Influenza. Tetanus. Yellow fever. Filariasis HIV, AIDS. Communicable diseases. Reproductive Tract Infections.	3	3	2	3	2	3	3
	CO4: Describe special infection control measures, notification, isolation and immunization.	3	3	3	3	3	3	3
	CO5: Develop nursing care plan for above diseases	3	3	2	3	2	3	3
	CO 6: Explain special therapies, alternative therapies in communicable diseases.	3	3	2	3	2	3	3
XIII (25 Hrs)	At the end of the unit students are able to Knowledge: Identify and explain the uses of various instruments used in common surgeries. Skill: Sterilize instruments, arrange operation trolley and assist minor surgeries. Attitude: Follows aseptic technique strictly.	<ul style="list-style-type: none"> • Peri Operative nursing: Members of the OT team. Duties and responsibility of nurse in OT. • Principles of health and operating room attire: Instruments. Sutures and suture materials. Equipments. O.T. tables and sets for common surgical procedure. Scrubbing procedures. Gowning and gloving. Preparation of O.T. sets. Monitoring the patient's .Maintenance of therapeutics environment in O.T. Biomedical waste management. • Anesthesia –Types, Methods of administration, Effects and stages, Equipment, Drugs. (15 hours) 			<ul style="list-style-type: none"> • Organization and physical set up of the operation theatre: Classification. O.T. DESIGN. Staffing. Standard safely measures. Infection control: fumigation, disinfection and sterilization. (3 hours) Prevention of accidents and hazards in O.T • Pain management techniques. (8 Hrs) 		<ul style="list-style-type: none"> • Legal Aspects during surgical procedures. • Cardio pulmonary Resuscitation (CPR) • (2Hr) 	

Course outcome	Program outcome						
	Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1: Define perioperative nursing	3	3	2	3	2	3	3
CO2: Explain members of OT team and responsibilities of nurse.	3	3	2	3	2	3	3
CO3: Explain Principles of health and operating room attire.	3	3	2	3	2	3	3
CO4: Describe Anesthesia its types, methods of administration, effects and stages and equipments.	3	3	2	3	2	3	3
CO: 5 Describe organization and physical setup of OT.	3	3	1	3	2	3	3
CO6: Determine Prevention of accidents and hazards in O.T	3	3	1	3	2	3	3
CO7: Explain infection control measures	3	3	1	3	2	3	3
CO8: Determine pain management techniques	3	3	3	3	2	3	3
CO9: Describe Legal Aspects during surgical procedures	3	3	3	3	2	3	3
CO10: Explain Cardio pulmonary Resuscitation (CPR)	3	3	3	3	3	3	3

TEACHING STRATEGY:

Total teaching hours: 930

Theory Hours: 210

Clinical Hours: 720

TEACHING METHODS:

- Lectures, Laboratory Demonstration, Group Discussion, Clinical Observation, Workshop and Simulation, Integrated teaching program ,PBL and **Modified tutorial**

ASSIGNMENTS:• **Theory:**

Sr. No	Assignments	No./Quantity	Marks Per Assignment	Total Marks
1	Home assignment	Two	20	40

- One tutorial shall be conducted in each term.

• **Practical:**

• Practical:

Sr. No	Assignments	No./Quantity	Marks Per Assignment	Total Marks
1	Clinical Performance Evaluation	Three Area	50	150
2	Case study	One	25	25
3	Case Presentation	One	25	25
4	Nursing care plan (Including Therapeutic Diet) One in each Clinical Area- Medicine , Gen. Surgery and orthopedic Surgery	Three	20	60
5	O.T. Report	One	20	20
6	Procedure Evaluation	One	20	20
Total Marks				300

A.V. AIDS:

- Over head projector, L.C.D. Computer Assisted Instruction, Flip Chart, Posters, Black Board, Mannequins.

LIST OF PROCEDURES TO BE DEMONSTRATED:

<i>Unit No.</i>	<i>Procedure to be demonstrated</i>	<i>Unit No.</i>	<i>Procedure to be demonstrated</i>
I	<ul style="list-style-type: none"> • Surgical sepsis • Dressings • Care of wound drainage 	VI	<ul style="list-style-type: none"> • Bladder wash / irrigation • Care of indwelling catheter – Male and female • Condom catheter/Drainage
III	<ul style="list-style-type: none"> • Respiratory assessment • Assisting in procedures - X-ray chest, MRI, Lung biopsy, bronchoscopy • Thoracocentesis, care of 	IV	Preparing, assessing and witnessing – <ul style="list-style-type: none"> • Barium meal, enema • Abdominal paracentesis, Liver biopsy • Endoscopies ERCP, OGD, Colonoscopy, Proctoscopy, Sigmoidoscopy.

<p>patient with chest drainage, change of chest drainage.</p> <ul style="list-style-type: none"> Care of the patient on ventilators and weaning, nebulization 	<ul style="list-style-type: none"> Liver Function test Gastric analysis, stomach wash Gastrostomy feeding, Jejunostomy feeding. Bowel wash, Colonostomy care.
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PROCEDURES:

Patients to be prepared for and assisted in: Thoracocentesis, Abdominal paracentesis, Bronchography, Oesophgscopy, Gastroscopy, Tracheostomy, Sternal Puncture, Removal of sutures, Lumber Puncture, Intravenous infusion, Blood transfusion, Vein section, Kidney biopsy, Bone marrow aspiration, Surgical dressing, Cardiac catheterization, Angiocardiography, Holter monitoring, Liver biopsy, Needle biopsy, Doppler Ultrasound.

Distribution of Clinical Hours:

<i>Sr. No.</i>	<i>Area of experience</i>	<i>No. of hours</i>	<i>Sr. No.</i>	<i>Area of experience</i>	<i>No. of hours</i>
1	Medical Unit	180	4	Operation Theatre	180
2	Surgery Unit	180	5	Orthopedic Unit	60
3	Cardiac Ward / ICU / CCU	60	6	Skin and Communicable diseases	60
Total					720

LIST OF RECOMMENDED BOOKS:

- Text Book of Medical Surgical Nursing – Brunner and Suddarth.
- Medical Surgical Nursing – Clinical Positive Out – Joyce and Black.
- Medical Surgical Assessment and Management of clinical problems – Lewis, Colliner.
- Medical Surgical Nursing – A psychopathologic approach- Luckmann and Sorenson.
- Medical Surgical Nursing – A Nursing Process Approach.
- Medical Surgical Nursing B.T. Basvanthappa.
- Medical Surgical Nursing an integrated approach – Write L. and Delmar.
- Moroneys Surgery for Nurses – Colmer.
- API Text Book Medicine- Shah N.S.
- Pharmacology and Pharmacotherapeutics – Satoskat and Bhandarkar.
- Fundamentals of Operation Theatre Services – Datta T.K.
- Fundamentals of orthopedics – Maheshwari.
- Illustrated Textbook of Dermatology – Parischa J.S. , Gupta.
- Davidson principles and practice of Medicine.
- The Lippincott Manual of Nursing Practice – Nettina, Sandra.