ADULT HEALTH NURSING - I WITH INTEGRATED PATHOPHYSIOLOGY

(including BCLS module)PLACEMENT: III SEMESTER

THEORY: 7 Credits (140 hours)

PRACTICUM: Lab/Skill Lab (SL) – 1 Credit (40 hours) Clinical – 6 Credits (480 hours)

DESCRIPTION: This course is designed to equip the students to review and apply their knowledge of Anatomy, Physiology, Biochemistry and Behavioral sciences in caring for adult patients with Medical/Surgical disorders using nursingprocess approach and critical thinking. It also intends to develop competencies required for assessment, diagnosis, treatment, nursing management, and supportive/palliative care to patients with various Medical Surgical disorders.

COMPETENCIES: On completion of Medical Surgical Nursing I course, students will be able to

- 1. Explain the etiology, pathophysiology, manifestations, diagnostic studies, treatments and complications of common medical and surgical disorders.
- Perform complete health assessment to establish a data base for providing quality patient care and integrate theknowledge of anatomy, physiology and diagnostic tests in the process of data collection.
- 3. Identify nursing diagnoses, list them according to priority and formulate nursing care plan.
- 4. Perform nursing procedures skillfully and apply scientific principles while giving comprehensive nursing care topatients.
- 5. Integrate knowledge of pathology, nutrition and pharmacology in caring for patients experiencing various medical and surgical disorders.
- 6. Identify common diagnostic measures related to the health problems with emphasis on nursing assessment andresponsibilities.
- 7. Demonstrate skill in assisting/performing diagnostic and therapeutic procedures.
- 8. Demonstrate competencies/skills to patients undergoing treatment for medical surgical disorders.
- 9. Identify the drugs used in treating patients with medical surgical conditions.
- 10. Plan and give relevant individual and group education on significant medical surgical topics.
- Maintain safe environment for patients and the health care personnel in the hospital.
- 12. Integrate evidence-based information while giving nursing care to patients.

COURSE CONTENT

$T-Theory, L/SL-Lab/Skill\ Lab$

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
I	6 (T) 4 (L/SL)	Narrate the evolution of medical surgical nursing Apply nursing process in caring for patients with medical surgical problems Execute the role of a nurse in various medical surgical setting Develop skills in assessment and care of	 Evolution and trends of medical and surgical nursing International classification of diseases Roles and responsibility of a nurse in medical and surgical settings Outpatient department In-patient unit Intensive care unit Introduction to medical and surgical asepsis Inflammation, infection 	Lecture cum discussion Demonstration & Practice session Role play Visit to outpatient department, in patient and intensive care unit	• Short Answer • OSCE
	assessme wound		 Wound healing – stages, influencing factors 		

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
		Develop competency in	Wound care and dressing technique		
		providing pre and	Care of surgical patient		
		postoperative care	o pre-operative		
			o post-operative		
			Alternative therapies used in caring for patients with Medical Surgical Disorders		

П	15 (T) 4 (L/SL)	Explain organizational set up of the operating theatre Differentiate the role of scrub nurse and circulating nurse Describe the different positioning for various surgeries Apply principles of asepsis in handling the sterile equipment Demonstrate skill in scrubbing procedures Demonstrate skill in assessing the patient and document accurately the surgical safety checklist Develop skill in assisting with selected surgeries Explain the types, functions, and nursing considerations for different types of anaesthesia	Intraoperative Care Organization and physical set up of the operation theatre Classification O.T Design Staffing Members of the OT team Duties and responsibilities of the nurse in OT Position and draping for common surgical procedures Instruments, sutures and suture materials, equipment for common surgical procedures Disinfection and sterilization of equipment Preparation of sets for common surgical procedures Scrubbing procedures Scrubbing procedures – Gowning, masking and gloving Monitoring the patient during the procedures Maintenance of the therapeutic environment in OT Assisting in major and minor operation, handling specimen Prevention of accidents and hazards in OT Anaesthesia – types, methods of administration, effects and stages, equipment & drugs Legal aspects	Lecture cum Discussion Demonstration, Practice session, and Case Discussion Visit to receiving bay	disinfectants used for instruments with the action and precaution
Ш	6 (T) 4 (L/SL)	Identify the signs and symptoms of shock and electrolyte imbalances Develop skills in managing fluid and electrolyte imbalances	Nursing care of patients with common signs and symptoms and management Fluid and electrolyte imbalance Shock Pain	Lecture, discussion, demonstration Case discussion	Short answerMCQCase report

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
		Perform pain assessment and plans for the nursing management			
IV	18 (T) 4 (L)	Demonstrate skill in respiratory assessment Differentiates different breath sounds and lists the indications Explain the etiology, pathophysiology, clinical manifestations, diagnostic tests, and medical, surgical, nutritional, and nursing management of common respiratory problems Describe the health behaviour to be adopted in preventing respiratory illnesses	Nursing Management of patients with respiratory problems Review of anatomy and physiology of respiratory system Nursing Assessment – history taking, physical assessment and diagnostic tests Common respiratory problems: Upper respiratory tract infections Chronic obstructive pulmonary diseases Pleural effusion, Empyema Bronchiectasis Pneumonia Lung abscess Cyst and tumors Chest Injuries Acute respiratory distress syndrome Pulmonary embolism Health behaviours to prevent respiratory illness	Lecture, discussion, Demonstration Practice session Case presentation Visit to PFT Lab	• Essay • Short answer • OSCE
V	16 (T) 5 (L)	Explain the etiology, pathophysiology, clinical manifestations, diagnostic tests, and medical, surgical, nutritional, and nursing management of gastrointestinal disorders Demonstrate skill in gastrointestinal assessment Prepare patient for upper and lower gastrointestinal investigations Demonstrate skill in gastric decompression, gavage, and stoma care	Nursing Management of patients with disorders of digestive system Review of anatomy and physiology of GI system Nursing assessment –History and physical assessment GI investigations Common GI disorders: Oral cavity: lips, gums and teeth GI: Bleeding, Infections, Inflammation, tumors, Obstruction, Perforation & Peritonitis Peptic & duodenal ulcer, Mal-absorption, Appendicitis, Hernias Hemorrhoids, fissures, Fistulas Pancreas: inflammation, cysts, and tumors	 Lecture, Discussion Demonstration, Role play Problem Based Learning Visit to stoma clinic 	Short answerQuizOSCE

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
		Demonstrate skill in different feeding techniques	Liver: inflammation, cysts, abscess, cirrhosis, portal hypertension, hepatic failure, tumors Gall bladder: inflammation, Cholelithiasis, tumors		
			Gastric decompression, gavage and stoma care, different feeding techniques Alternative therapies, drugs used in treatment of disorders of digestive system		
VI	20 (T) 5 (L)	Explain the etiology, pathophysiology, clinical manifestations, diagnostic tests, and medical, surgical, nutritional, and nursing management of cardiovascular disorders Demonstrate skill in cardiovascular assessment Prepare patient for invasive and non-invasive cardiac procedures Demonstrate skill in monitoring and interpreting clinical signs related to cardiac disorders Complete BLS/BCLS module	Nursing Management of patients with cardiovascular problems Review of anatomy and physiology of cardio-vascular system Nursing Assessment: History and Physical assessment Invasive & non-invasive cardiac procedures Disorders of vascular system-Hypertension, arteriosclerosis, Raynaud's disease, aneurysm and peripheral vascular disorders Coronary artery diseases: coronary atherosclerosis, Angina pectoris, myocardial infarction Valvular disorders: congenital and acquired Rheumatic heart disease: pericarditis, myocarditis, endocarditis, cardiomyopathies Cardiac dysrhythmias, heart block Congestive heart failure, corpulmonale, pulmonary edema, cardiogenic shock, cardiac tamponade	 Lecture, discussion Demonstration Practice session Case Discussion Health education Drug Book/presentation Completion of BCLS Module 	Care plan Drug record BLS/ BCLS evaluation
VII	7 (T)	Explain the etiology,	Cardiopulmonary arrest Nursing Management of patients	Field visit to blood	Interpretation of
	3 (L)	pathophysiology, clinical manifestations, diagnostic tests, and medical, surgical, nutritional, and nursing management of hematological disorders	with disorders of blood Review of Anatomy and Physiology of blood Nursing assessment: history, physical assessment & Diagnostic tests Anemia, Polycythemia Bleeding Disorders: clotting factor defects and platelets defects,	bank • Counseling	blood reports Visit report

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
		Prepare and provides health education on blood donation	agranulocytosis • Lymphomas, myelomas		
VIII	8 (T) 2 (L)	Explain the etiology, pathophysiology, clinical manifestations, diagnostic tests, and medical, surgical, nutritional, and nursing management of endocrine disorders Demonstrate skill in assessment of endocrine organ dysfunction Prepare and provides health education on diabetic diet Demonstrate skill in insulin administration	Nursing management of patients with disorders of endocrine system Review of anatomy and physiology of endocrine system Nursing Assessment –History and Physical assessment Disorders of thyroid and Parathyroid, Adrenal and Pituitary (Hyper, Hypo, tumors) Diabetes mellitus	Lecture, discussion, demonstration Practice session Case Discussion Health education	Prepare health education on self-administration of insulin Submits a diabetic diet plan
IX	8 (T) 2 (L)	Explain the etiology, pathophysiology, clinical manifestations, diagnostic tests, and medical, surgical, nutritional, and nursing management of disorders of integumentary system Demonstrate skill in integumentary assessment Demonstrate skill in medicated bath Prepare and provide health education on skin care	Nursing management of patients with disorders of Integumentary system Review of anatomy and physiology of skin Nursing Assessment: History and Physical assessment Infection and infestations; Dermatitis Dermatoses; infectious and Non infectious Acne, Allergies, Eczema & Pemphigus Psoriasis, Malignant melanoma, Alopecia Special therapies, alternative therapies Drugs used in treatment of disorders of integumentary system	 Lecture, discussion Demonstration Practice session Case Discussion 	Drug report Preparation of Home care plan
X	16 (T) 4 (L)	Explain the etiology, pathophysiology, clinical manifestations, diagnostic tests, and medical, surgical, nutritional, and nursing management of musculoskeletal disorders	Nursing management of patients with musculoskeletal problems Review of Anatomy and physiology of the musculoskeletal system Nursing Assessment: History and physical assessment, diagnostic tests Musculoskeletal trauma: Dislocation, fracture, sprain, strain,	 Lecture/ Discussion Demonstration Case Discussion Health education 	Nursing care plan Prepare health teaching on care of patient with cast

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
	(Hrs)	Demonstrate skill in musculoskeletal assessment Prepare patient for radiological and non-radiological investigations of musculoskeletal system Demonstrate skill in crutch walking and splinting Demonstrate skill in care of patient with replacement surgeries	contusion, amputation • Musculoskeletal infections and tumors: Osteomyelitis, benign and malignant tumour • Orthopedic modalities: Cast, splint, traction, crutch walking • Musculoskeletal inflammation: Bursitis, synovitis, arthritis • Special therapies, alternative therapies • Metabolic bone disorder: Osteoporosis, osteomalacia and Paget's disease • Spinal column defects and deformities – tumor, prolapsed intervertebral disc, Pott's spine • Rehabilitation, prosthesis	Activities	Methods
		Prepare and provide health education on bone healing	Rehabilitation, prosthesis Replacement surgeries		
XI	20 (T) 3 (L)	Explain the etiology, pathophysiology, clinical manifestations, diagnostic tests, and medical, surgical, nutritional, and nursing management of patients with communicable diseases Demonstrate skill in barrier and reverse barrier techniques Demonstrate skill in execution of different isolation protocols	Nursing management of patients with Communicable diseases Overview of infectious diseases, the infectious process Nursing Assessment: History and Physical assessment, Diagnostic tests Tuberculosis Diarrhoeal diseases, hepatitis A-E, Typhoid Herpes, chickenpox, Smallpox, Measles, Mumps, Influenza Meningitis Gas gangrene Leprosy Dengue, Plague, Malaria, Chikungunya, swine flu, Filariasis Diphtheria, Pertussis, Tetanus, Poliomyelitis COVID-19 Special infection control measures: Notification, Isolation, Quarantine, Immunization	Lecture, discussion, demonstration Practice session Case Discussion/seminar Health education Drug Book/presentation Refer TB Control & Management module	Prepares and submits protocol on various isolation techniques

BIBLIOGRAPHY:

- Black J.M. Hawk, J.H. (2005) Medical Surgical Nursing Clinical Management for Positive Outcomes. (7th ed) Elsevier.
- 2. Brunner S. B., Suddarth D.S. The Lippincott Manual of Nursing practice J.B.Lippincott. Philadelphia.
- 3. Medical Surgical Nursing: an integrated approach 2^{nd} ed , White, L, Delmar Thomson learning (2002) United States
- 4. Lewis, Heitkemper&Dirksen (2000) Medical Surgical Nursing Assessment and Management of Clinical Problem (6 thed) Mosby.
- 5. Colmer R.M. (1995) Moroney's Surgery for Nurses (16 thed) ELBS.
- 6. Shah N.S. (2003) A P I textbook of Medicine, The Association of Physicians of India Mumbai.
- 7. Satoskar R.S., Bhandarkar S.D. & Rege N.N. (2003) Pharmacology and Pharmacotherapeutics
- (19 thed) Popular Prakashan, Mumbai.
- 8. Phipps W.J., Long C.B. & Wood N.F. (2001) Shaffer's Medical Surgical Nursing B.T.Publication
- Pvt. Ltd. New Delhi.
- 9 Datta T.K. (2003) Fundamentals of Operation Theatre Services, Jaypee, New Delhi.
- 10. Maheswari J Essentials of Orthopedics (3rd ed) Mehta Publication, NewDelhi.
- 11 Pasricha J.S., Gupta R. (2001) Illustrated Text book of Dermatology (2nded) Jaypee brothers New Delhi.
- 12 Haslett C., Chilvers E.R., Hunder J.A.A. &Boon, N.A. (1999) Davidson's Principles and Practice of Medicine (18 thed) Churchill living stone. Edinburgh.
- 13 Walsh M. (2002) Watson's Clinical Nursing and Related Sciences (6thed) Bailliere Tindall Edinburgh.
- 14. Medical Surgical Nursing: an integrated approach $2^{nd}\,$ ed , White, L, Delmar Thomson learning (2002) United States
- Medical Surgical Nursing: A Nursing process approach Vol. I & II, , Ignatacicius, Donna
 Workman, Linda, W. B. Saunders Company, Philadelphia (1995)
- The Lippincott Manual of Nursing practice, 7th ed, Nettina, Sandra, Lippincott Williams
 Wilkins, Philadelphia (2001)

CLINICAL PRACTICUM

CLINICAL PRACTICUM: 6 Credits (480 hours) - 18 weeks \times 27

hours

PRACTICE COMPETENCIES: On completion of the clinical practicum, the students will be able to apply nursing process and critical thinking in delivering holistic nursing care including rehabilitation to the adult patients undergoing surgery, with shock and fluid and electrolyte imbalance and with selected medical & surgical conditions i.e., Gastrointestinal, Respiratory, Endocrine, Orthopedic, Dermatology and Cardiovascular disorders.

The students will be competent to:

- 1. Utilize the nursing process in providing care to the sick adults in the hospital:
 - a. Perform complete health assessment to establish a data base for providing quality patient care.
 - b. Integrate the knowledge of diagnostic tests in the process of data collection.
 - c. Identify nursing diagnoses and list them according to priority.
 - d. Formulate nursing care plan, using problem solving approach.
 - e. Apply scientific principles while giving nursing care to patients.
 - f. Perform nursing procedures skillfully on patients.
 - g. Establish/develop interpersonal relationship with patients and family members.
 - h. Evaluate the expected outcomes and modify the plan according to the patient needs.
- 2. Provide comfort and safety to adult patients in the hospital.
- 3. Maintain safe environment for patients during hospitalization.
- 4. Explain nursing actions appropriately to the patients and family members.
- 5. Ensure patient safety while providing nursing procedures.
- 6. Assess the educational needs of the patient and their family related to medical and surgical disorders and provide appropriate health education to patients.
- 7. Provide pre, intra and post-operative care to patients undergoing surgery.
- 8. Integrate knowledge of pathology, nutrition and pharmacology for patients experiencing various medical and surgical disorders.
- 9. Integrate evidence-based information while giving nursing care to patients.
- 10. Demonstrate the awareness of legal and ethical issues in nursing practice.

I. NURSING MANAGEMENT OF PATIENTS WITH MEDICAL CONDITIONS

A. Skill Lab

Use of manikins and simulators

- Intravenous therapy
- Oxygen through mask
- · Oxygen through nasal prongs
- Venturi mask
- Nebulization
- Chest physiotherapy

Clinical area/unit	Duration (weeks)	Learning Outcomes	Procedural Competencies/ Clinical Skills	Clinical Requirements	Assessment Methods
General medical	4	Develop skill in intravenous injection administration and IV therapy	Intravenous therapy IV cannulation IV maintenance and monitoring Administration of IV medication	 Care Study – 1 Health education Clinical presentation/ Care 	
		Assist with diagnostic procedures Develop skill in the management of patients with Respiratory problems Develop skill in managing patients with metabolic abnormality	 Care of patient with Central line Preparation and assisting and monitoring of patients undergoing diagnostic procedures such as thoracentesis, Abdominal paracentesis Management patients with respiratory problems Administration of oxygen through mask, nasal prongs, venturi mask Pulse oximetry Nebulization Chest physiotherapy Postural drainage Oropharyngeal suctioning Care of patient with chest drainage Diet Planning High Protein diet Diabetic diet Insulin administration Monitoring GRBS 	note) – 1	evaluation • Care Note/ Clinical presentation

II. NURSING MANAGEMENT OF PATIENTS WITH SURGICAL CONDITIONS

A. Skill Lab

Use of manikins and simulators

- Nasogastric aspiration
- Surgical dressing
- Suture removal
- Colostomy care/ileostomy care
- · Enteral feeding

B. Clinical Postings

Clinical area/unit	Duration (Weeks)	Learning Outcomes	Procedural Competencies/ Clinical Skills	Clinical Requirements	Assessment Methods
General surgical wards	4	Develop skill in caring for patients during pre- and post- operative period Assist with diagnostic procedures Develop skill in managing patient with Gastro-intestinal Problems	 Pre-Operative care Immediate Post-operative care Post-operative exercise Pain assessment Pain Management Assisting diagnostic procedure and after care of patients undergoing Colonoscopy ERCP Endoscopy Liver Biopsy 	 Care study – 1 Health teaching 	Clinical evaluation, OSCE Care study Care note/Clinical presentation
		Develop skill in wound management	 Nasogastric aspiration Gastrostomy/Jejunostomy feeds Ileostomy/Colostomy care Surgical dressing Suture removal Surgical soak Sitz bath Care of drain 		

III. NURSING MANAGEMENT OF PATIENTS WITH CARDIAC CONDITIONS

A. Skill Lab

Use of manikins and simulators

- Cardiovascular assessment
- Interpreting ECG
- BLS/BCLS
- CPR
- ABG analysis
- Taking blood sample
- Arterial blood gas analysis interpretation

Clinical	Duration	Learning	Procedural Competencies/ Clinical	Clinical	Assessment
area/unit	(Weeks)	Outcomes	Skills	Requirements	Methods
Cardiology wards	2	Develop skill in management of patients with cardiac problems Develop skill in management of patients with disorders of Blood	 Cardiac monitoring Recording and interpreting ECG Arterial blood gas analysis – interpretation Administer cardiac drugs Preparation and after care of patients for cardiac catheterization CPR Collection of blood sample for: Blood grouping/cross matching Blood sugar Serum electrolytes Assisting with blood transfusion Assisting for bone marrow aspiration Application of anti-embolism stockings (TED hose) Application/maintenance of sequential Compression device 	 Cardiac assessment – 1 Drug presentation – 1 	Clinical evaluation Drug presentation

IV. NURSING MANAGEMENT OF PATIENTS WITH DISORDERS OF INTEGUMENTARY SYSTEM

A. Skill Lab

Use of manikins and simulators

Application of topical medication

Clinical	Duration	Learning	Procedural Competencies/	Clinical	Assessment
area/unit	(Weeks)	Outcomes	Clinical Skills	Requirements	Methods
Dermatology wards	1	disorders or	 Intradermal injection-Skin allergy testing Application of topical medication Medicated bath 		Clinical evaluation

V. NURSING MANAGEMENT OF PATIENTS WITH COMMUNICABLE DISEASES

A. Skill Lab

- Barrier Nursing
- Reverse Barrier Nursing
- · Standard precautions

B. Clinical Postings

Clinical	Duration	Learning	Procedural Competencies/ Clinical	Clinical	Assessment
area/unit	(Weeks)	Outcomes	Skills	Requirements	Methods
Isolation ward	1	Develop skill in the management of patients requiring isolation	Barrier Nursing Reverse barrier nursing Standard precautions (Universal precaution), use of PPE, needle stick and sharp injury prevention, Cleaning and disinfection, Respiratory hygiene, waste disposal and safe injection practices)	• Care Note – 1	Clinical evaluation Care note

VI. NURSING MANAGEMENT OF PATIENTS WITH MUSCULOSKELETAL PROBLEMS

A. Skill Lab

Use of manikins and simulators

- Range of motion exercises
- Muscle strengthening exercises
- Crutch walking

Clinical	Duration	Learning Outcomes	Procedural Competencies/	Clinical	Assessment
area/unit	(Weeks)		Clinical Skills	Requirements	Methods
Orthopedic wards	2	Develop skill in management of patients with musculoskeletal problems	Preparation of patient with Myelogram/CT/MRI Assisting with application & removal of POP/Cast Preparation, assisting and after care of patient with Skin	• Care Note – 1	Clinical evaluation, Care note

	traction/skeletal traction	
	Care of orthotics	
	Muscle strengthening exercises	
	 Crutch walking 	
	Rehabilitation	

VII. NURSING MANAGEMENT OF PATIENTS IN THE OPERATING ROOMS

A. Skill Lab

Use of manikins and simulators

- Scrubbing, gowning and gloving
- Orient to instruments for common surgeries
- Orient to suture materials
- Positioning

Clinical	Duration	Learning	Procedural Competencies/ Clinical	Clinical	Assessment
area/unit	(Weeks)	Outcomes	Skills	Requirements	Methods
Operation theatre	4	caring for intraoperative patients	 Position and draping Preparation of operation table Set up of trolley with instrument Assisting in major and minor operation Disinfection and sterilization of equipment Scrubbing procedures – Gowning, masking and gloving Intra operative monitoring 	Assist as circulatory nurse – 4 Positioning & draping – 5 Assist as scrub nurse in major surgeries – 4 Assist as scrub nurse in minor surgeries – 4	Clinical evaluationOSCE