# STUDY & EVALUATION SCHEME OF BACHELOR OF SCIENCES IN NURSING (B.Sc. NURSING)



# (B.Sc. NURSING - II YEAR/ III SEMESTER)

[Applicable w.e.f. Academic Session 2021-22 till revised]

INTEGRAL UNIVERSITY, LUCKNOW DASAULI, P.O. BAS-HA KURSI ROAD, LUCKNOW – 226026

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(Syllabus approved by Board of Study, Faculty Board, Academic Council, Executive Council of the Integral University, Lucknow)

# **STUDY & EVALUATION SCHEME**

# **BACHELOR OF SCIENCES IN NURSING** (B.Sc. NURSING)

# (W.e.f. July 2021)

#### II – Year

**III - Semester** 

S.No.	Code No.	Name of the Subject	Periods		Credits	Evaluation Scheme				Subject	
						Sessional			Exam	Total	
			L	T	Ρ		СТ	ТА	Total	ESE	
1.	NR 201	Applied Microbiology and Infection control including safety	1	1	2	3	15	10	25	75	100
2.	NR 202	Pharmacology-I and Pathology-I	1	1	0	2	15*	10*	25*		
3.	NR 203	Adult Health Nursing – I	6	1	0	7	15	10	25	75	100
5.	NR 204	Adult Health Nursing – I Lab	0	0	2	1	30	20	50	50	100
		Total	80	3	4	13	60	40	100	200	300

\*will be added to the internal marks of Pharmacology-II and Pathology-II & Genetics in the next semester (Total weightage remains the same)

L: Lecture	T: Tutorials	P: Practical	C: Credit	CT: Class Test

**TA:** Teacher Assessment

**ESE:** End Semester Examination

Sessional Total: Class Test + Teacher Assessment

Subject Total: Sessional Total + End Semester Examination (ESE)

# APPLIED MICROBIOLOGY AND INFECTION CONTROL INCLUDING SAFETY (NR 201)

#### L T P 3 11

#### PLACEMENT: III SEMESTER SECTION A & SECTION B

Theory: 3 Credits (40 Hrs) LAB: 1 Credit (40 Hrs)

# SECTION A: APPLIED MICROBIOLOGY

THEORY: 1½ Credit (20 hours)

PRACTICAL: ½ Credit (20 hours)

(Lab/Experiential learning – L/E)

## SECTION B: INFECTION CONTROL & SAFETY

THEORY: 1½ Credit (20 hours)

PRACTICAL: <sup>1</sup>/<sub>2</sub> Credit (20 hours)

(Lab/Experiential learning – L/E)

# SECTION A: APPLIED MICROBIOLOGY

**DESCRIPTION:** This course is designed to enable students to acquire understanding of fundamentals of Microbiology, compare and contrast different microbes and comprehend the means of transmission and control of spread by various microorganisms. It also provides opportunities for practicing infection control measures in hospital and community settings.

### COMPETENCIES

On completion of the course, the students will be able to:

- 1. Identify the ubiquity and diversity of microorganisms in the human body and the environment
- 2. Classify and explain the morphology and growth of microbes
- 3. Identify various types of microorganisms
- 4. Explore mechanisms by which microorganisms cause disease
- 5. Develop understanding of how the human immune system counteracts infection by specific and non-specific mechanisms
- 6. Apply the principles of preparation and use of vaccines in immunization
- 7. Identify the contribution of the microbiologist and the microbiology laboratory to the diagnosis of infection

#### COURSE OUTLINE SECTION A: APPLIED MICROBIOLOGY

#### UNIT = I

#### **INTRODUCTION**

- Importance and relevance to nursing
- Historical perspective
- Concepts and terminology
- Principles of microbiology

#### **GENERAL CHARACTERISTICS OF MICROBES**

- Structure and classification of Microbes
- Morphological types
- Size and form of bacteria
- Motility
- Colonization
- Growth and nutrition of microbes
- Temperature
- Moisture
- Blood and body fluids
- Laboratory methods for identification of microorganisms
- Types of staining simple, differential (Gram's, AFB), special capsular staining (negative), spore, LPCB, KOH mount
- Culture and media preparation solid and liquid. Types of media semi synthetic, synthetic, enriched, enrichment, selective and differential media. Pure culture techniques – tube dilution, pour, spread, streak plate, anaerobic cultivation of bacteria

(13Hours)

#### UNIT = II

#### PATHOGENIC ORGANISMS

- Micro-organisms Cocci gram positive and gram negative, Bacilli gram positive and gram negative
- Viruses
- Fungi superficial and deep mycoses
- Parasites
- Rodents & vectors
  - Characteristics, source, portal of entry, transmission of infection, identification of disease producing micro-organism

#### CONTENT:

#### **IMMUNITY**

- Immunity types, classification
- Antigen and antibody reaction
- Hypersensitivity reactions
- Serological tests
- Immunoglobulins structure, types & properties
- Vaccines types & classification, storage and handling, cold chain, immunization for various diseases
- Immunization Schedule

#### SECTION B: INFECTION CONTROL & SAFETY

THEORY:1½ Credit (20 hrs)PRACTICAL:½ Credit (20 hrs)(Lab/experiential learning – L/E)

**DESCRIPTION:** This course is designed to help students to acquire knowledge and develop competencies required for fundamental patient safety and infection control in delivering patient care. It also focuses on identifying patient safety indicators, preventing and managing hospital acquired infections and in following universal precautions

**COMPETENCIES:** The students will be able to:

- 1. Develop knowledge and understanding of Hospital Acquire Infection (HAI) and effective practices for prevention
- 2. Integrate the knowledge of isolation (barrier and reverse barrier) techniques in implementing various precautions
- 3. Demonstrate and practice steps in hand washing and appropriate use of different types of PPE
- 4. Illustrate various disinfection and sterilization methods and techniques
- 5. Demonstrate knowledge and skill in specimen collection, handling and transport to optimize the diagnosis for treatment
- 6. Incorporate the principles and guidelines of Bio-Medical Waste Management
- 7. Apply the principles of Antibiotic stewardship in performing the nurses role
- 8. Identify patient safety indicators and perform the role of nurse in the patient safety audit process
- 9. Apply the knowledge of International Patient Safety Goals (IPSG) in the patient care settings
- 10. Identify employee safety indicators and risk of occupational hazards
- 11. Develop understanding of the various safety protocols and adhere to those protocols

#### UNIT = III

#### HAI (HOSPITAL ACQUIRED INFECTION)

- Hospital acquired infection
- Bundle approach
  - Prevention of Urinary Tract Infection (UTI)
  - Prevention of Surgical Site Infection (SSI)
  - Prevention of Ventilator Associated Events (VAE)
  - Prevention of Central Line Associated Blood Stream Infection (CLABSI)
- Surveillance of HAI infection control team & infection control committee

#### CONTENT:

#### ISOLATION PRECAUTIONS AND USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Types of isolation system, standard precaution and transmission-based precautions (Direct Contact, Droplet, Indirect)
- Epidemiology & infection prevention CDC guidelines
- Effective use of PPE

#### CONTENT:

#### HAND HYGIENE

- Types of hand hygiene
- Hand washing and use of alcohol hand rub
- Moments of hand hygiene
- WHO hand hygiene promotion

#### CONTENT

#### **DISINFECTION AND STERILIZATION**

- Definitions
- Types of disinfection and sterilization
- Environment cleaning
- Equipment cleaning
- Guides on use of disinfectants
- Spaulding's principle

#### SPECIMEN COLLECTION (REVIEW)

- Principles of specimen collection
- Types of specimen
- Collection techniques and special considerations
- Appropriate containers
- Transportation of the sample
- Staff precautions in handling specimens

#### UNIT = IV

(6 Hours)

#### BMW (BIO MEDICAL WASTE MANAGEMENT)

Laundry management process and infection control and prevention

- Waste management process and infection prevention
- Staff precautions
- Laundry management
- Country ordinance and BMW national guidelines 2017: Segration of wastes, color coded waste containers, waste collection & storage, packaging & labeling, transportation

#### CONTENT:

#### **ANTIBIOTIC STEWARDSHIP**

- Importance of antibiotic stewardship
- Anti microbial resistance
- Prevention of MRSA, MDRO in healthcare setting

#### CONTENT:

#### PATIENT SAFETY INDICATORS

- Care of Vulnerable patients
- Prevention of latrogenic injury
- Care of lines, drains and tubing's
- Restrain policy and care physical and chemical
- Blood & blood transfusion policy
- Prevention of IV complication
- Prevention of fall
- Prevention of DVT

- Shifting and transporting of patients
- Surgical safety
- Care coordination event related to medication reconciliation and administration
- Prevention of communication errors
- Prevention of HAI
- Documentation

#### UNIT =V

#### **INCIDENTS AND ADVERSE EVENTS**

- Capturing of incidents
- RCA
- CAPA
- Report writing

### **IPSG (INTERNATIONAL PATIENT SAFETY GOALS)**

- Identify patient correctly
- Improve effective communication
- Improve safety of high alert medication
- Ensure safe surgery
- Reduce the risk of health care associated infection
- Reduce the risk of patient harm resulting from falls
- Reduce the harm associated with clinical alarm system

#### SAFETY PROTOCOL

- 5 S
- Radiation safety
- Laser safety
- Fire safety
  - o Types and classification of fire
  - o Fire alarms
  - Firefighting equipment
- HAZMAT safety
  - Types of spill
  - o Spillage management
  - o MSDS
- Environmental safety
  - o Risk assessment

(6 Hours)

- Aspect impact analysis
- Maintenance of Temp and Humidity (Department wise Audits)
- Emergency Codes
- Role of nurse in times of disaster

#### EMPLOYEE SAFETY INDICATORS

- Vaccination
- NSI prevention
- Fall prevention
- Radiation safety
- Annual health check

#### HEALTHCARE WORKER IMMUNIZATION PROGRAMME AND MANAGEMENT OF OCCUPATIONAL EXPOSURE

- Occupational health ordinance
- Vaccination programme for healthcare staff
- Needle stick injuries and prevention
- Post exposure prophylaxis



# **Experiential Learning:**

Experiential learning is the process by which knowledge is created through the process of experience in the clinical field. Knowledge results from the combination of grasping and transforming experience. (Kolb, 1984). The experiential learning cycle begins with an experience that the student has had, followed by an opportunity to reflect on that experience. Then students may conceptualize and draw conclusions about what they

image by Karin Kirk

experienced and observed, leading to future actions in which the students experiment with different behaviors. This begins the new cycle as the students have new experiences based on their experimentation. These steps may occur in nearly and order as the learning progresses. As per the need of the learner, the concrete components and conceptual components can be in different order as they may require a variety of cognitive and affective behaviors.

#### **RECOMMENDED BOOKS:**

- 1. Essential of Microbiology for Nurses, I Kannan, Elsevier Science, 1<sup>st</sup> Editon
- Microbiology, N Arumugam, A.Thangamani, L.M. Naarayan , Saras Publication, 1<sup>st</sup> Edition
- 3. Microbiology for Nurses , R.L. Ichhichhpiyani, Rajesh Bhatia, Jp, Edition 2<sup>nd</sup>
- Textbook of Microbiology for Nurse, Preety Sharma, Vardhan Publication & Distributors, 1<sup>st</sup> Edition
- 5. A Text Book of Microbiology for Nurses, Sandeep Kaur, Lotus Publication, 2<sup>nd</sup> Edition

# PHARMACOLOGY- I & PATHOLOGY-I – (NR 202)

#### PLACEMENT: III SEMESTERS

1 1 0 Theory: 2 Credits (40 Hrs)

LTP

#### PHARMACOLOGY-I

Theory: 1 Credits (20 Hrs)

**DESCRIPTION:** This course is designed to enable students to acquire understanding of Pharmaco-dynamics, Pharmaco-kinetics, principles of therapeutics & nursing implications

#### **COMPETENCIES:**

On completion of the course, the students will be able to

- 1. Describe Pharmacodynamics and Pharmacokinetics
- 2. Review the principles of drug calculation and administration
- 3. Explain the commonly used antiseptics and disinfections
- 4. Describe the pharmacology of drugs acting on the GI system
- 5. Describe the pharmacology of drugs acting on the respiratory system
- 6. Describe drugs used in the treatment of cardiovascular and blood disorders
- 7. Explain the drugs used in the treatment of endocrine system disorders
- 8. Describe the drugs acting on skin and drugs used to treat communicable diseases
- 9. Explain the drugs used in the treatment of ear, nose, throat and eye disorders
- 10. Explain the drugs used in the treatment of urinary system disorders
- 11. Describe the drugs used in the treatment of nervous system disorders
- 12. Explain the drugs used for hormonal replacement and for the pregnant women during antenatal, intra natal and postnatal period
- 13. Explain the drugs used to treat emergency conditions and immune disorders
- 14. Discuss the role and responsibilities of nurses towards safe administration of drugs used to treat disorders of various systems with basic understanding of pharmacology
- 15. Demonstrate understanding about the drugs used in alternative system of medicine

#### **COURSE OUTLINE**

#### UNIT = I

#### (6 Hours)

#### INTRODUCTION TO PHARMACOLOGY

- Definition & branches
- Nature & sources of drugs
- Dosage forms and routes of drug administration
- Terminology used
- Classification, abbreviations, prescription, drug calculation, weights and measures
- *Pharmacodynamics:* Actions, Drug Antagonism, Synergism, Tolerance, Receptors, Therapeutic, Adverse, Toxic Effects, Pharmacovigilance
- Pharmacokinetics: Absorption, Bioavailability, Distribution, Metabolism, Interaction, Excretion
- Review-principles of drug administration and treatment individualization
  - Factors affecting dose, route etc
- Indian Pharmacopoeia: Legal Issues, Drug Laws, Schedule Drugs
- Rational Use of Drugs
- Principles of Therapeutics

#### CONTENT:

#### PHARMACOLOGY OF COMMONLY USED ANTISEPTICS AND DISINFECTANTS

- Antiseptics and disinfectants
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse

#### DRUGS USED IN TREATMENT OF CARDIOVASCULAR SYSTEM AND BLOOD DISORDERS

- Haematinics & treatment of anemia and antiadrenergics
- Cholinergic and anti-cholinergic
- Adrenergic drugs for CHF & vasodilators
- Anti anginals
- Antiarrhythmics
- Antihypertensives
- Coagulants & anticoagulants
- Antiplatelets & thrombolytics
- Hypolipidemics

- Plasma expanders & treatment of shock
- Drugs used to treat blood disorders
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse

#### DRUGS ACTING ON G.I. SYSTEM

- Pharmacology of commonly used drugs
  - Emetics and antiemetic
  - Laxatives and Purgatives
  - Antacids and antipeptic ulcer drugs
  - Anti diarrhoeals fluid and electrolyte therapy, Furazolidone, dicyclomine
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse

#### UNIT = II

#### (8 hours)

#### DRUGS ACTING ON RESPIRATORY SYSTEM

- Pharmacology of commonly used
  - Antiasthmatics Bronchodilators (Salbutamol inhalers)
  - o Decongestants
  - o Expectorants, Antitussives and Mucolytics
  - Broncho-constrictors and antihistamines
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse

#### DRUGS USED IN TREATMENT OF ENDOCRINE SYSTEM DISORDERS

- Insulin & oral hypoglycemic
- Thyroid and anti thyroid drugs
- Steroids
  - $\circ$  Corticosteroids
  - o Anabolic steroids
- Calcitonin, parathormone, vit. D3, calcium metabolism
  - o Calcium salts

#### UNIT = III

#### DRUGS USED IN TREATMENT OF INTEGUMENTARY SYSTEM

- Antihistaminics and antipruritics
- Topical application for skin Benzylbenzoate, Gamma BHC, Clotrimazole, Miconazole, Silver Sulphadiazine (burns)
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse

# DRUGS USED IN TREATMENT OF COMMUNICABLE DISEASES (COMMON INFECTIONS, INFESTATIONS)

- General principles for use of antimicrobials
- Pharmacology of commonly used drugs:
  - Penicillin, Cephalosporin's, Aminoglycosides, Macrolide & broad spectrum antibiotics, Sulfonamides, Quinolones, Misc. Antimicrobials
- Anaerobic infections
- Antitubercular drugs
- Anti leprosy drugs
- Antimalarials
- Antiretroviral drugs
- Antiviral agents
- Antihelminthics, Anti scabies agents
- Antifungal agents

Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse

Theory: 1 Credits (20 Hrs

**DESCRIPTION:** This course is designed to enable students to acquire knowledge of pathology of various disease conditions, understanding of genetics, its role in causation and management of defects & disease & apply this knowledge in practice of nursing.

#### COMPETENCIES:

On completion of the course, the students will be able to

- 1. Apply the knowledge of pathology in understanding the deviations from normal to abnormal pathology.
- 2. Rationalize the various laboratory investigations in diagnosing pathological disorders.
- 3. Demonstrate the understanding of the students of collections of blood, body cavity fluids, urine & feces for various tests.
- 4. Apply the knowledge of genetics in understanding the various pathological disorders.
- 5. Appreciate the various manifestations in patients with diagnosed genetic abnormalities.
- 6. Demonstrate the understanding of various services related to genetics.

#### UNIT IV INTRODUCTION:

- Importance of the study of pathology
- Definition of terms in pathology
- Cell injury: Etiology, pathogenesis of reversible and irreversible cell injury, Necrosis, Gangrene
- Cellular adaptations: atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia, Apoptosis
- Inflammation: Acute inflammation (vascular & cellular events, systemic effects of acute inflammation)
- Chronic inflammation (granulomatous inflammation, systemic effects of chronic inflammation)
- Wound healing
- Neoplasia: nomenclature, normal & cancer cell, benign & malignant tumors, carcinoma in situ, tumor metastasis: general mechanism, routes of spread & example of each route
- Circulatory disturbances: thrombosis, embolism, shock
- Disturbance of body fluids & electrolytes edema, transudates & exudates

(8 Hours)

#### UNIT = V

#### CONTENT:

#### **Special pathology**

#### Pathological changes the disease conditions of selected systems:

#### 1. Respiratory system

- Pulmonary infections: Pneumonia, Lung Abscess, Pulmonary Tuberculosis
- Chronic Obstructive Pulmonary Disease: Chronic bronchitis, emphysema, bronchial asthma, bronchiectasis
- Tumors of lungs

#### 2. Cardio- vascular system

- Atherosclerosis
- Ischemia & infarction
- Rheumatics heart disease
- infective endocarditis

#### 3. Gastrointestinal tract

- Peptic ulcer disease (gastric & duodenal ulcer)
- Gastritis H pylori infection
- Oral mucosa : oral leukoplakia , squmaous cell carcinoma
- Esophageal cancer
- Intestinal ; Typhoid Ulcer, Inflammatory bowel disease ( crohn's disease & ulcerative colitis) colorectal cancer

#### 4. Liver, gall bladder & pancreas

- Liver; hepatitis , amoebic liver abcess , cirrhosis of liver
- Gall bladder : cholecystitis
- Pancreas: pancreastitis
- Tumor of liver: gall bladder & pancreas

#### 5. Skeletal system

- Bone: bone healing, osteoporosis, osteomylitis, tumors
- Joints: arthritis rheumatoid arthritis & osteoarthritis

#### 6. Endocrine system:

- diabetes mellitus
- Goiter
- Carcinoma thyroid

#### Hematological tests for the diagnosis of blood disorders

- Blood tests: hemoglobin, white cell & platelet count, PCV, ESR
- Coagulations tests: bleeding time (BT), Prothrombin Time (APTT)
- Blood chemistry
  - Blood bank-
  - blood grouping & cross matching
- Blood components
- o Plasmapheresis

o Transfusion reactions

#### **RECOMMENDED BOOKS:.**

- 1. Pharmacology for Nurses, Tara V Sahnbhag, Smita Shianoy, Veena Nayak, Elsevier Publication, 1<sup>st</sup> Edition
- 2. Focus on Nursing Pharmacology, Amy M Kerch , Wottrs Cluwer Publication, 8th Edition
- 3. Dabis Drugs Guide for Nurses, F. A. Davis, Valler & Sanoski Publication, 14<sup>th</sup> Edition
- 4. Pharmacology for Nurse, Sabnam Masih, Lotus Publication, 5<sup>th</sup> Edition
- 5. Textbook for Phramacolgy , Pathania J.S., Cbs Nursing, 1<sup>st</sup> Edition
- 6. Textbook of Pathology & Genetics For B.Sc. Nursing Students, Chaitra K, Chaiba K, Jaypee Publication, 1<sup>st</sup> Edition
- 7. Pathology & Genetics for Nurses , K Suramantham, Jaypee Publication, 3rd Edition
- Textbook of Pathology & Genetics for Nurses, Ramadas Nayak, Jaypee Publication, 2<sup>nd</sup> Edition

# ADULT HEALTH NURSING-I WITH INTEGRATED PATHOPHYSIOLOGY (including BCLS module) – (NR 203)

L T P 6 1 0

PLACEMENT: III SEMESTERS

Theory: 7 Credits (140 Hrs) PRACTICAL: Lab / Skill Lab – 1 Credit (40 hrs) CLINICAL: 6 Credits (480 hrs)

**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 nursing process 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, treatment and complications of common medical and surgical disorders
- 2. Perform complete health assessment to establish a data base for providing quality patient care and integrate the knowledge of anatomy, physiology and diagnostic tests in the process of data collection
- 3. Identify 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 to patients
- 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 and responsibilities
- 7. Demonstrate skill in assessing /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
- 11. Maintain safe environment for patients and the health care personnel in the hospital
- 12. Integrate evidence-based information while giving nursing care to patients

#### UNIT = I INTRODUCTION, INTRAOPERATIVE CARE & NURSING CARE OF PATIENTS WITH COMMON SIGNS AND SYMPTOMS AND MANAGEMENT (27HRS)

#### **INTRODUCTION**

- Evolution and trends of medical and surgical nursing
- International classification of diseases
- Role and responsibility of a nurse in medical and surgical settings
  - Outpatient department
  - o Inpatient unit
  - o Intensive Care Unit
- Introduction to medical and surgical asepsis
  - o Inflammation, infection
  - Wound healing stages, influencing factors
  - Wound care and dressing techniques
- Care of surgical patient
  - o Pre-operative
  - o Post-operative
- Alternative therapies used in caring for patients with Medical Surgical Disorders

#### **INTRAOPERATIVE CARE**

- Organization and physical set up of the operation theatre
  - Classification
  - OT design
  - Staffing
  - o Members of the OT team
  - o 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 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
- Anesthesia types, methods of administration, effects and stages, equipment & drugs
- Legal aspects

#### NURSING CARE OF PATIENTS WITH COMMON SIGNS AND SYMPTOMS AND MANAGEMENT

- Fluid and electrolyte imbalance
- Shock
- Pain

#### UNIT =II NURSING MANAGEMENT OF PATIENTS WITH RESPIRATORY PROBLEMS ,NURSING MANAGEMENT OF PATIENTS WITH DISORDERS OF DIGESTIVE SYSTEM

(34Hours)

#### 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
  - o Chronic obstructive pulmonary diseases
  - Pleural effusion, Empyema
  - o Bronchiectasis
  - o Pneumonia
  - Lung abscess
  - Cyst and tumors
  - Chest injuries
  - Acute respiratory distress syndrome
  - Pulmonary embolism
- Health behaviors to prevent respiratory illness

#### NURSING MANAGEMENT OF PATIENTS WITH DISORDERS OF DIGESTIVE SYSTEM

- · Review of anatomy and physiology of GI system
- Nursing assessment History and physical assessment
- GI investigation
- Common GI disorders:
  - o Oral cavity-lips, gums and teeth
  - GI bleeding, infections, inflammation, tumors, obstruction, perforation & peritonitis
  - Peptic & duodenal ulcer
  - o Mal-absorption, Appendicitis, Hernias
  - Hemorrhoids, Fissures, Fistulas
  - Pancreas inflammation, cysts and tumors
  - Liver-inflammation, cysts, abscess, cirrhosis, portal hypertension, hepatic failure, tumors
  - o 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

### UNIT = III NURSING MANAGEMENT OF PATIENTS WITH CARDIOVASCULAR PROBLEMS & NURSING MANAGEMENT OF PATIENTS WITH DISORDERS OF BLOOD (27HRS)

#### NURSING MANAGEMENT OF PATIENTS WITH CARDIOVASCULAR PROBLEMS

- Review of anatomy and physiology of cardiovascular system
- Nursing assessment history and physical assessment
- 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 dysrrhythmias, heart block
- Congestive heart failure, corpulmonale, pulmonary edema, cardiogenic shock, cardiac tamponade
- Cardiopulmonary arrest

#### NURSING MANAGEMENT OF PATIENTS WITH DISORDERS OF BLOOD

- Review of anatomy and physiology of blood, nursing assessment history, physical assessment & diagnostic tests
- Anemia, Polycythemia
- Bleeding disorders clotting factors defects and platelets defects, thalassemia, leukemias, leukopenias, agranulocytosis
- Lymphomas, myelomas

UNIT =IV NURSING MANAGEMENT OF PATIENTS WITH DISORDERS OF ENDOCRINE SYSTEM, NURSING MANAGEMENT OF PATIENTS WITH DISORDERS OF INTEGUMENTARY SYSTEM , NURSING MANAGEMENT OF PATIENTS WITH MUSCULOSKELETAL PROBLEMS

(32Hours)

#### 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

#### 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

#### 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, contusion, amputation
- Musculoskeletal infections and tumors: Osteomyelitis, benign and malignant tumor
- Orthopedic modalities: cast, splint, traction, crutch walking
- Musculoskeletal inflammation: Bursitis, synovitis, arthritis
- Special therapies, alternative therapies
- Metabolic bone disorders: Osteoporosis, osteomalacia and paget's disease
- Spinal column defects and deformities tumor, prolapsed intervertebral disc, Pott's spine
- Rehabilitation, prosthesis
- Replacement surgeries

#### UNIT = V

#### (20 Hours)

#### 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

Special infection control measures: Notification, Isolation, Quarantine, Immunization

#### **RECOMMENDED BOOKS:**

- 1. Medical Surgical Nursing I & II, Sethi Deepak, Jaypee Publication, 1<sup>st</sup> Edition
- 2. Medical Surgical Nursing I, Kaur Justin, Foster's Publication,1<sup>st</sup> Edition
- 3. A Textbook of Medical Surgical Nursing part I, S N Chaugh, APC Publication, 1<sup>st</sup> Edition

# ADULT HEALTH NURSING-I LAB NR 204 CLINICAL PRACTICUM & ADULT HEALTH NURSING-I LAB

L T P 0 0 12

# CLINICAL PRACTICUM

#### CLINICAL PRACTICUM: 6 Credits (480 Hrs) 18 weeks x 27 hrs

# Placement: III Semester

#### 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 patient 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. Integrated knowledge of pathology, nutrition and pharmacology for patients experiencing various medical and surgical disorders
- 9. Integrated evidence-based information while giving nursing care to patients

Demonstrate the awareness of legal and ethical issues in nursing practice

# LAB

# Placement: III Semester Practical: 1 Credits (40hrs) NURSING MANAGEMENT OF PATIENTS WITH MEDICAL CONDITIONAS

#### Use of manikins and simulators

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

## SUBJECT NAME: CLINICAL POSTING SUBJECT CODE: NR205

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#### PLACEMENT: III SEMESTER Clinical –480 Hours (6 Credits)

18 Weeks x 27 hrs

# A. Clinical Posting

#### CLINICAL AREA UNIT: GENERAL MEDICAL

#### **DURATION IN WEEKS: 4**

#### PROCEDURAL COMPETENCIES/CLINICAL SKILLS:

- Intravenous therapy
  - o IV cannulation
  - o IV maintenance and monitoring
  - Administration of IV medication
- 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, venture mask
- Pulse oximetry
- Nebulization
- Chest physiotherapy
- Postural drainage
- Oropharyngeal suctioning
- Care of patient with chest drainage
- Diet planning
  - High protein diet
  - o Diabetic diet
- Insulin administration
- Monitoring GRBS

#### **II. NURSING MANAGEMENT OF PATIENT 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 Posting

#### CLINICAL AREA UNIT: GENERAL SURGICAL WARD

#### **DURATION IN WEEKS: 4**

#### PROCEDURAL COMPETENCIES/CLINICAL SKILLS:

- Pre-operative care
- Immediate post-operative care
- Post-operative exercise
- Pain assessment
- Pain management
- Assisting diagnostic procedure and after care of patients undergoing
  - o Colonoscopy
  - ERCP
  - Endoscopy
  - o Liver Biopsy
- Nasogastric aspiration
- Gastrostomy / Jejunostomy feeds
- Ileostomy / Colostomy care
- Surgical dressing
- Suture removal
- Surgical soak
- Sitz bath
- Care of drain

#### **III. NURSING MANAGEMENT OF PATIENT WITH CARDIAC CONDITIONS**

#### A. Skill Lab

#### Use of Manikins and Simulators

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

# B. Clinical Posting

#### CLINICAL AREA UNIT: CARDIOLOGY WARD

#### **DURATION IN WEEKS: 2**

#### PROCEDURAL COMPETENCIES/CLINICAL SKILLS:

- 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 antiembolism stockings (TED hose)
- Application / maintenance of sequential compression device

# IV. NURSING MANAGEMENT OF PATIENT WITH DISORDERS OF INTEGUMENTARY SYSTEM

#### A. Skill Lab

#### Use of Manikins and Simulators

Application of topical medication

# B. Clinical Posting

#### CLINICAL AREA UNIT: DERMATOLOGY WARDS

#### **DURATION IN WEEK: 1**

#### PROCEDURAL COMPETENCIES/CLINICAL SKILLS:

- Intradermal injection skin allergy testing
- Application of topical medication
- Medicated bath

#### **V. NURSING MANAGEMENT OF PATIENT WITH COMMUNICABLE DISEASES**

#### A. Skill Lab

- Barrier Nursing
- Reverse Barrier Nursing
- Standard Precautions

# B. Clinical Posting

#### **CLINICAL AREA UNIT: ISOLATION WARD**

#### **DURATION IN WEEK: 1**

#### PROCEDURAL COMPETENCIES/CLINICAL SKILLS:

- Barrier Nursing
- Reverse barrier nursing
- Standards precautions (Universal Precautions) Use of PPE, needle stick and sharp injury prevention, cleaning and disinfection, respiratory hygiene, waste disposal and safe injection practices

# VI. NURSING MANAGEMENT OF PATIENT WITH MUSCULOSKELETAL PROBLEMS

#### A. Skill Lab

#### Use of Manikins and Simulators

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

### B. Clinical Posting

#### **CLINICAL AREA UNIT: ORTHOPEDIC WARDS**

#### **DURATION IN WEEKS: 2**

#### PROCEDURAL COMPETENCIES/CLINICAL SKILLS:

- Preparation of patient with Myelogram / CT / MRI
- Assisting with application & removal of POP / cast
- Preparation, assisting and after care of patient with skin traction / skeletal traction
- Care of orthotics
- Muscles strengthening exercises
- Crutch walking
- Rehabilitation

#### **VII. NURSING MANAGEMENT OF PATIENT 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

## B. Clinical Posting

#### **CLINICAL AREA UNIT: OPERATION THEATRE**

#### **DURATION IN WEEKS: 4**

#### PROCEDURAL COMPETENCIES/CLINICAL SKILLS:

- 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