

## POST BASIC B.SC. NURSING

**UNDER GRADUATE PROGRAM :** Post Basic B.Sc. Nursing

**ELIGIBILITY CRITERIA:** Registered Nurses Midwife (Diploma in Nursing) with minimum one year experience either in hospital as a whole time public health nurse

**COURSE DURATION :** 2 years

### COURSES OF STUDY

#### 1<sup>st</sup> Year

S.No	Subject	Hours Theory	Hours Practical
1.	Nursing Foundation	45	
2.	Nutrition & Dietetics	30	25
3.	Biochemistry and Biophysics	60	30
4.	Psychology	60	15
5.	Maternal Nursing	60	240
6.	Child Health Nursing	60	240
7.	Microbiology	60	30
8.	Medical & Surgical Nursing	90	300
9.	English(Qualifying)	60	
Total		525	880

#### 2<sup>nd</sup> Year

10.	Sociology	60	
11.	Community Health Nursing	60	240
12.	Mental Health Nursing	60	240
13.	Introduction to Nursing Education	60	75
14.	Introduction to Nursing Administration	60	180
15.	Introduction to Nursing Research & Statistics	45	120
Total		345	855

## SCHEME OF EXAMINATION

PAPER	SUBJECT	DURATION	INT. ASS.	EXT. ASS.	TOTAL MARKS
1 <sup>st</sup> year					
	1. Nursing foundation	2	15	35	50
	2. Nutrition & Dietetics	2	15	35	50
	3. Biochemistry and biophysics	3	25	75	100
	4. Psychology	3	25	75	100
	5. Microbiology	3	25	75	100
	6. Maternal Nursing	3	25	75	100
	7. Child health Nursing	3	25	75	100
	8. Medical and surgical Nursing	3	25	75	100
	9. English (Qualifying)	3	25	75	100
Practicals					
	1. Medical & Surgical Nursing		50	50	100
	2. Maternal Nursing		50	50	100
	3. Child Health Nursing		50	50	100
2 <sup>nd</sup> Year					
	10. Sociology	3	25	75	100
	11. Community Health Nursing	3	25	75	100
	12. Mental health nursing	3	25	75	100
	13. Introduction to Nursing Education	3	25	75	100
	14. Introduction to Nursing Administration	3	25	75	100
	15. Introduction to Nursing Research and Statistics	2	50	-	50
Practicals					
	4. Community Health Nursing		50	50	100
	5. Mental Health Nursing		50	50	100
	6. Research Project		50	50	50

## **SYLLABUS**

### **NURSING FOUNDATION**

**Placement :First Year**

**Time Allotted: Theory -45 hrs.**

#### **COURSE DESCRIPTION**

This course will help students develop an understanding of the philosophy, objectives and responsibilities of nursing as a profession. The purpose of the course is to orient to the current concepts involved in the practice of nursing and developments in the nursing profession.

#### **OBJECTIVES**

At the end of the course, the student will

1. Identify professional aspects of nursing
2. Explain theories of nursing
3. Identify ethical aspects of nursing profession.
4. Utilise steps of nursing process.
5. Identify the role of the nursing in various levels of health services.
6. Appreciate the significance of quality assurance in nursing
7. Explain current trends in health and nursing.

#### **COURSE CONTENTS**

##### **UNIT –I**

- Development of Nursing as a profession
- its philosophy
- Objectives and responsibilities of a graduate nurse
- Trends influencing nursing practice
- Expanded role of the nurse
- Development of nursing education in India and trends in nursing education
- Professional organizations, career planning
- Code of ethics & Professional conduct for nurse.

##### **Unit II**

- Ethical, legal and other issues in nursing
- Concepts of health and illness, effects on the person
- Stress and adaptation
- Health care concept and nursing care concept

- Developmental concept, needs, roles and problems of the development stages of individual –newborn, infant, toddler, pre-adolescent, adolescent, adulthood, middle-age, old age.

### **UNIT III**

- Theory of nursing practice
- Meta paradigm of nursing –characterized by four central concepts i.e. nurse, person (client/patient), health and environment.

### **UNIT IV**

- Nursing process.
- Assessment: Tools for assessment, methods, recording.
- Planning: Techniques for planning care, types of care plans.
- Implementation of care, recording.
- Evaluation: Tools for evaluation, process of evaluation.

### **UNIT V**

- Quality assurance: nursing standards, nursing audit, total quality management.
- Role of council and professional bodies in maintenance of standards.

### **UNIT VI**

Primary health care concept:

- Community oriented nursing
- Holistic nursing
- Primary nursing
- Family oriented nursing concept:
  
- Problem oriented nursing
- Progressive patient care
- Team nursing

## **NUTRITION AND DIETETICS**

**Placement :First Year**

**Time Allotted: Theory -30 hrs.  
Practical -25 hrs**

### **COURSE DESCRIPTION**

This course is designed to provide the students with a wide knowledge of dietetics in Indian setting, that the practice of teaching optimum and realistic dietary planning can become an integral part of nursing practice.

### **OBJECTIVES**

At the end of the course, the student will

1. Explain the principles and practices of nutrition and dietetics.
2. Plan therapeutic diets in different settings.
3. Identify nutritional needs of different age groups and plan diet accordingly.
4. Prepare meals using different methods utilizing cookery rules.

### **COURSE CONTENTS**

#### **UNIT I**

- Introduction to nutrition and dietetics.
- Balanced diet, factors on which it depends.
- Factors to be considered in planning.
- Guides available for planning.
- Food hygiene, preparation and preservation
- Review of nutrients –micro and macro.

#### **UNIT II**

- Introduction to diet therapy
- Routine hospital diets
- Therapeutic diet under each unit i.e. cardiovascular diseased, Gastronitestinal diseases, Renal disorders, endocrine and metabolic disorders, allergy, infections and fevers, pre and post operative stage, deficiency diseases and malnutrition, overweight and underweight.

### **UNIT III**

- Infant and child nutrition
- Feeding of normal infants: factors to be considered in planning, nutritional requirements.
- Feeding of premature infants: factors to be considered in planning, nutritional requirements.
- Supplementary feeding of infants: Advantage and method of introduction.
- Weaning, effects on mother and child
- Psychology of infant and child feeding.
- Feed the sick child. Diet in diseases of infancy and childhood.
- Deficiency states – malnutrition and under nutrition.
- Feeding pre-school child: nutritional needs, factors to be considered in planning diets. Problems in feeding.
- School lunch programme: Advantages, Need in India.

### **UNIT IV**

- Community Nutrition: Need for community nutrition programme.
- Nutritional needs for special groups: infant, child, adolescent, pregnant woman, lactating mother and old people.
- Substitutes for non-vegetarian foods.
- Selection of cheap and nutritious foods. Nutrition education- needs and methods.
- Methods of assessing nutritional status of individual/group/community.
- Current nutritional problems and national programmes.

### **PRACTICUM**

#### **I. Methods of cooking and cookery rules.**

1. Simple preparation of beverages, soups, cereals and pulses, eggs, vegetables, meat.
2. Menu Plans.

#### **II. Preparation of supplementary food for infants.**

1. Food for toddlers.
2. Low cost nutritious dishes for vulnerable groups.
3. Dietary case study of patient on special diet and planning of low cost dietary instructions for home adaptations.
4. Planning of therapeutic diets.

## **BIOCHEMISTRY AND BIOPHYSICS**

**Placement: First Year**

**Time Allotted:**

**Section A (Biochemistry) – Theory 30 hrs.**

**Section B (Biophysics) - Theory 30 hrs.**

**Practical - 30 hrs**

### **COURSE DESCRIPTION:**

This course introduces the basic principles of biochemistry and biophysics related to nursing.

### **OBJECTIVES:**

At the end of the course, the student will

1. Identify the basic principles of biochemistry and biophysics.
2. Synthesize the knowledge of these principles in various nursing situations.

### **SECTION A: BIOCHEMISTRY**

Theory – 30 hrs

### **COURSE CONTENTS**

#### **UNIT I**

- Introduction : Importance of biochemistry in nursing
- Study of cell and its various components.

#### **UNIT II**

- Water and Electrolytes: Water sources, property and functions in human body.
- Water and fluid balance.
- Electrolytes of human body, functions, sources.

### **UNIT III**

- Enzymes
- Mechanism of action
- Factors affecting enzyme activity
- Diagnostic applications
- Precautions for handling specimens for enzyme estimation
- Digestion and absorption of carbohydrates, proteins and fats
- Various factors influencing the digestion and absorption, malabsorption syndrome.

### **UNIT IV**

- Carbohydrates: Catabolism of carbohydrates for energy purposes
- Mitochondrial oxidation and oxidation phosphorylation.
- Fats of glucose in the body. Storage of glucose in the body, glycogenesis, glycogenolysis and neoglucogenesis, blood glucose and its regulation.
- Glucose tolerance test, hyperglycemia, hypoglycemia, glycemia.

### **UNIT V**

- Protein : Amino acids, hormones.
- Essential amino acids. Biosynthesis of protein in the cells
- Role of nucleic acid in protein synthesis.
- Nitrogenous constituents of urine, blood, their origin –urea cycle, uric acid formation, gout.
- Plasma proteins and their functions.

### **UNIT VI**

- Fat: Biosynthesis of fats and storage of fats in the body.
- Role of liver in fat metabolism
- Biological importance of important lipids and their functions
- Cholesterol and lipoprotein
- Sources, occurrence and distribution
- Blood level and metabolism
- Ketone bodies and utilization.
- Inter- relationships in metabolism and cellular control of metabolic processes.

## **SECTION B: BIOPHYSICS**

### **COURSE CONTENTS**

#### **UNIT I**

- Introduction :Concepts of unit and measurements.
- Fundamental and derived units.
- Units of length, weight, mass, time.

#### **UNIT II**

- Vector and scalar motion, speed, velocity and acceleration.

#### **UNIT III**

- Gravity: Specific gravity, centre of gravity, principles of gravity.
- Effect of gravitational forces on human body.
- Application of principles of gravity in nursing.

#### **UNIT IV**

- Force, work, Energy: Their units of measurement.
- Type and transformation of energy, forces of the body, static forces.
- Principles of machines, friction and body mechanics.
- Simple mechanics – lever and body mechanics, pulley and traction, incline plane, screw.
- Application of these principles in nursing.

#### **UNIT V**

- Heat: Nature, measurement, transfer of heat
- Effects of heat on matter
- Relative humidity, specific heat
- Temperature scales
- Regulation of body temperature
- Use of heat for sterilization
- Application of these principles in nursing

## **UNIT VI**

- Light: Laws of reflection
- Focusing elements of the eye, defective vision and its correction, use of lenses.
- Relationship between energy, frequency and wavelength of light
- Biological effects of light.
- Use of light in therapy.
- Application of these principles in Nursing.

## **UNIT VII**

- Pressures: Atmospheric pressure, hydrostatic pressure, osmotic pressure.

Measurements of pressures in the body

- Arterial and venous blood pressures
- Ocular pressure
- Intracranial pressure
- Applications of these principles in nursing.

## **UNIT VIII**

- Sound: Frequency, Velocity and intensity
- Vocalization and hearing
- Use of ultrasound. Noise pollution and its prevention
- Application of these principles in nursing.

## **UNIT IX**

- Electricity and Electromagnetism: Nature of electricity. Voltage, current, resistance and their units.
- Flow of electricity in solids, electrolytes, gases and vacuum.
- Electricity and human body.
- ECG, EEG, EMG, ECT
- Pace makers and defibrillation
- Magnetism and electricity.
- M.R.I Scanning, CAT Scan

## **UNIT X**

- Atomic Energy: Structure of Atom, Isotopes and Isobars.
- Radioactivity: Use of radioactive isotopes.
- Radiation protection units and limits, instruments used for detection of ionising radiation. X-rays.

## **UNIT XI**

- Principles of Electronics: Common electronic equipments used in patient care.

### **Practicum:**

Experiments and Tests should be demonstrated wherever applicable.

## **PSYCHOLOGY**

**Placement :First Year**

**Time Allotted: Theory -60 hrs.  
Practical- 15 hrs**

### **COURSE DESCRIPTION**

This course is designed to reorient and widen the student's knowledge of fundamentals of psychology. The student is offered an opportunity to apply the theoretical concepts in the clinical setting and thereby understand the psychodynamics of patient behaviour. This course would also help the student to develop and insight into her own behaviour.

### **OBJECTIVES**

At the end of the course, the student will

1. Apply psychological principles while performing nursing duties.
2. Distinguish the psychological processes during health and sickness.
3. Analyze own behaviour patterns.
4. Tabulate the psychological needs of the patients for planning nursing care.
5. Participate in psychometric assessment of the client.

### **COURSE CONTENTS**

#### **UNIT I**

- Introduction: Definition of psychology, scope and methods of psychology.
- Relationship with other subjects.

#### **UNIT II**

- Sensation, Attention and perception: Definitions
- Sensory processes: Normal and abnormal
- Attention and distraction: Contributory factors
- Characteristics of perception, perception: Normal and abnormal

### **UNIT III**

- Motivation: Definition and nature of motivation
- Biological and social motives
- Frustration and conflicts
- Self-actualization

### **UNIT IV**

- Emotions: Definition of emotions, expression and perception
- Emotions in sickness

### **UNIT V**

- Personality : Definition , constituents of personality
- Personality in sickness and nursing

### **UNIT VI**

- Psychological aspects of nursing
- Behaviour and sickness. Psychological needs of

Child and adolescents  
Adult  
Aged  
Attendants  
Chronically ill individual

### **UNIT VII**

- Individual differences
- Significance of individual differences.
- Heredity and environment
- Role of individual differences both in health and sickness.
- Implications of individual differences in nursing.

### **UNIT VIII**

- Intelligence and Abilities: Definition
- Intelligence and abilities during sickness
- Measurement of intelligence and abilities.

### **UNIT IX**

- Learning: Definition, conditions of learning
- Laws of learning
- Learning during health and sickness.

### **UNIT X**

- Memory and forgetting: Definition and nature of memory
- Memory during health and sickness.
- Forgetting during health and sickness

### **UNIT XI**

- Attitudes: Definition, Development and modification
- Role of attitudes in health and sickness.

### **UNIT XII**

- Concept of mental hygiene and mental health
- Characteristics of a mentally healthy person.
- Defense mechanisms.

### **PRACTICUM**

1. Simple experiments of (i) perception (ii) measuring thresholds (iii) reaction time.
2. Administration of psychological tests
3. Observation and recording data: (i) field observation (ii) interview (iii) case study (iv) self-rating.

## **MICROBIOLOGY**

**PLACEMENT: FIRST YEAR**

**TIME ALLOTTED: Theory -60 hrs  
Practical 30 hrs**

### **COURSE DESCRIPTION**

This course reorients the students to the fundamentals of Microbiology and its various sub-divisions. It provides opportunities to gain skill in handling and use of microscope for identifying various micro-organisms. It also provides opportunities for safe handling of materials containing harmful bacteria and methods of destroying microorganisms.

### **OBJECTIVES**

At the end of the course, the student will

1. Identify common disease producing micro-organisms.
2. Explain the basic principles of microbiology and their significance in health and disease.
3. Demonstrate skill in handling specimens.
4. Explain various methods of dis-infection and sterilization.
5. Identify the role of the nurse in hospital infection control system.

### **COURSE CONTENTS**

#### **UNIT I**

- Structure and classification of microbes
- Morphological types
- Size and form of bacteria
- Motility.
- Classification of Micro-organisms.

**Practical:**

- Use and care of microscope.
- Common examination :Smear, blood, mouldes, yeasts.

## **UNIT II**

- Identification of Micro-organisms
- Discussion of laboratory methods
- Diagnosis of bacterial diseases.

### **Practical:**

- Staining techniques-gram staining, acid fast staining.
- Hanging drop preparation.

## **UNIT III**

- Growth and Nutrition of Microbes
- Temperature
- Moisture
- Blood

### **Practical:**

- Preparation of Media and culture techniques.
- Collection, handling and transportation of various specimens.

## **UNIT IV**

- Destruction of Micro-organisms.
- Sterilization and disinfection
- Chemotherapy and antibiotics
- Effects of heat and cold
- Hospital infection control procedure and role of nurses.

**Practical:** Sterilization methods –physical, chemical and mechanical

## **UNIT V**

- Disease producing micro-organisms
- Gram positive bacilli
- Tuberculosis and Leprosy
- Anaerobes
- Cocci

- Spirochaete
- Rickettsiae

Practical: Identification and study of the following bacteria: Streptococci, pneumococci and Staphylococci, Corynebacteria, Spirochetes and gonococci. Enteric bacteria. Posting in infection control department.

## **UNIT VI**

- Pathogenic Fungi
- Dermatophytes
- Systemic mycotic infection
- Laboratory diagnosis of mycotic infection

## **UNIT VII**

- Immunity
- Immunity and hypersensitivity –Skin test
- Antigen and antibody reaction
- Immunization in disease.

Practical: Demonstration of serological methods

## **UNIT VIII**

- Parasites and vectors.
- Characteristics and classification of parasites
- Protozoal infection including amoebiasis
- Helminthes infection
- Diagnosis of parasitic infection
- Vectors and diseases transmitted by them.
- Practical: Identification of Parasites and Vectors.

## **UNIT IX**

- Viruses.
- Classification and general character of viruses
- Diseases caused by viruses in man and animal and their control.

## **UNIT X**

- Micro-organisms transmitted through food.
- Food poisoning. Food borne infections.

## **Practicum**

Each student will practice in the laboratory as indicated in each unit of the courses outline. While giving nursing care in the wards they will practice collection and processing of specimens, prevention and control of hospital infections, sterilization, immunization, chemotherapy and maintenance of personal and environmental hygiene. Observation visit to incinerator, Posting in CSSD and infection control department.

## **MATERNAL NURSING**

**Placement :first Year  
hrs**

**Time Allotted :Theory -60**

**Practical - 240 hrs**

## **COURSE DESCRIPTION**

This course is designed to widen the student's knowledge of obstetrics during pregnancy, labour and puerperium. It also helps to acquire knowledge and develop skill in rendering optimum nursing care to a child bearing mother in a hospital or community and help in the management of common gynecological problems.

## **OBJECTIVES**

At end of the course, the student will

1. Describe the physiology of pregnancy, labour and puerperium.
2. Manage normal pregnancy, labour and puerperium.
3. Explain the physiology of lactation and advice on management of breast feeding.
4. Be skilled in providing pre and post operative nursing care in obstetric conditions.
5. Identify and manage high risk pregnancy including appropriate referrals.
6. Propagate the concept and motivate acceptance of family planning methods.
7. Teach, guide and supervise auxiliary midwifery personnel.

## **COURSE CONTENTS**

### **UNIT I**

- Introduction and historical review
- Planned parenthood
- Maternal morbidity and mortality rates
- Legislations related to maternity benefits, MTP acts, incentives for family planning etc.,

### **UNIT II**

- Review of the anatomy and physiology of female reproductive system.
- Female pelvis(normal and contracted)
- Review of foetal development.

### **UNIT III**

- Physiology and management of pregnancy, labour and puerperium
- Signs and symptoms and diagnosis of pregnancy
- Antenatal care
- Pregnant women with HIV/AIDS
- Management of common gynaecological problems.

### **UNIT IV**

- The New born baby
- Care of the baby at birth including resuscitation
- Essential Newborn Care
  
- Feeding
- Jaundice and infection
- Small and large for date babies
- Intensive care of the new born
- Trauma and haemorrhage.

## **UNIT V**

- Management of abnormal pregnancy, labour and puerperium
- Abortion, ectopic pregnancy and vesicular mole.
- Pregnancy induced hypertension, gestational diabetes, anaemia, heart disease.
- Urinary infections, Antepartum hemorrhage
- Abnormal labour (malposition and malpresentation)
  
- Uterine inertia
- Disorders of puerperium
- Management of engorged breast, cracked nipples, breast abscess and mastitis
- Puerperal sepsis
- Post partum haemorrhage
- Inversion and prolapse of uterus, obstetrical emergencies
- Obstetrical operations i.e. forceps, vacuum, episiotomy, caesarean section.

## **UNIT VI**

- Drugs in obstetrics
- Effects of drugs during pregnancy, labour and puerperium on mother and baby.

## **UNIT VII**

- National Welfare programmes for women
- National Family welfare programme
- Infertile family
- Problems associated with unwanted pregnancy
- Unwed mothers.

## **PRACTICUM**

1. The students will
  - a. Be posted in antenatal clinic, antenatal ward, labour room, postnatal ward, maternity OT, MTP room.
  - b. Visit welfare agencies for women and write observation report.
  - c. Follow nursing process in providing care to 3-6 patients.
  - d. Write at least two nursing care studies and do a presentation
  - e. Give at least one planned health teaching to a group of mothers.

2. Practice following nursing procedures.

- a. Antenatal and post natal examination, per vaginal exam.
- b. Conduct normal delivery, stitching of episiotomy, (For male candidates minimum conduct of 5 deliveries)
- c. Motivation of family for adopting family planning methods.
- d. Motivate family for planned parenthood.
- e. Assist in various diagnostic and therapeutic procedures including IUD insertion and removal.

## **CHILD HEALTH NURSING**

**Placement :first Year**

**Time Allotted :Theory -60 hrs  
Practical - 240 hrs**

### **COURSE DESCRIPTION**

This course is aimed at developing an understanding of the modern approach to child care, the common health problems of children and neonates in health and sickness.

### **OBJECTIVES**

At the end of the course, the student will

1. Explain the modern concept of child care and the principles of child health nursing.
2. Describe the normal growth and development of children at different ages.
3. Manage sick as well as healthy neonates and children.
4. Identify various aspects of preventive pediatric nursing and apply them in providing nursing care to children in hospital and community.

## **COURSE CONTENTS**

### **UNIT I**

- Introduction
- Modern concept of child care
- Internationally accepted rights of the child
- National policy and legislations in relation to child health and welfare.
- National programmes related to child health and welfare.
- Changing trends in hospital care, preventive, promotive and curative aspects of child health.
- Child morbidity and mortality rates.
- Differences between an adult and child.
- Hospital environment for a sick child.
- The role of a paediatric nursing in caring for a hospitalized child
- Principles of pre and post operative care of infants and children.
- Paediatric nursing procedures.

### **UNIT II**

- The healthy child
- Growth and development from birth to adolescence
- The needs of normal children through the stages of development and parental guidance.
- Nutritional needs of children and infants breast-feeding, supplementary/artificial feeding and weaning.
- Accidents, causes and prevention
- Value of play and selection of play material
- Preventive immunization.

### **UNIT III**

- Nursing care of a neonate
- Nursing care of a normal newborn
- Neonatal resuscitation
- Nursing management of a low birth weight baby.
- Nursing management of common neonatal disorders.
- Organization of neonatal unit. Prevention of infections in the nursery.
- Nursing management in common childhood diseases
- Nutritional disorders and infections
- Respiratory disorders and infections
- Gastrointestinal infections, infestations and congenital disorders.

- Cardio vascular problem-congenital defects and rheumatic fever.
- Genito-urinary disorder –Nephrotic syndrome, wilms’ tumor, infection and congenital disorders.
- Neurological infections and disorders-convulsions, epilepsy, meningitis, hydrocephalus, spinabifida.
- Hematological disorders –aAnemias thalassemia, ITP, Leukemia,hemophilia.
- Endocrine disorders – Juvenile diabetes mellitus.
- Orthopedic disorders –club feet, hip dislocation and fracture.
- Disorders of skin, eye and ears.
- Common communicable diseases in children, their identification, nursing management in hospital and home and prevention.
- Paediatric emergencies –poisoning, foreign bodies, haemorrhage, burns and drowning.

## **UNIT V**

- Management of behaviour disorders in children.
- Management of challenged children:
  - Mentally challenged
  - Physically challenged
  - Socially challenged

## **PRACTICUM**

The student will:-

1. Be posted in paediatric medical and surgical ward, OPD in hospital, health centre and neonatal unit.
2. Visit a centre for handicapped children and child welfare centre and write observation report.
3. Write an observation study of normal children of various age groups in home/nursery school/ crèche.
4. Follow nursing process in providing care to 3-6 children.
5. Write at least two nursing care studies and do a presentation.
6. Give two planned health teachings, one in hospital and one in OPD/health centre.
7. Practice the following nursing procedures:
  8. Taking pediatric history.
  9. Physical assessment of children.
  10. Baby bath.
  11. Feeding
  12. Restraining
  13. Calculation of dosage of drugs and administration of medications and injections.
  14. Collection of specimens.
  15. Enema, bowel wash, colostomy irrigation.
  16. Steam and Oxygen inhalation
  17. Preparation to assist with diagnostic tests and operations.
  18. Examination/Assessment of a newborn
  19. Neonatal resuscitation

20. Care of a baby in incubator and on ventilator
21. Photo therapy
22. Assist in exchange transfusion and other therapeutic procedures.

## **MEDICAL SURGICAL NURSING**

**Placement: First Year**

**Time Allotted: Theory – 90 hrs**  
**Practical – 300 hrs**

### **COURSE DESCRIPTION**

The purpose of this course is to widen the student's knowledge and develop proficiency in caring for patients with medical surgical problems. This course includes review of relevant anatomy and physiology, pathophysiology in medical-surgical disorders and the nursing management of these conditions.

### **OBJECTIVES**

At the end of the course, the student will

1. Explain relevant Anatomy and Physiology of various systems of the body.
2. Explain pathophysiology of various disorders.
3. Explain the actions, side effects and nursing implications in administering drugs for various disorders.
4. Discuss the recent advancement in the treatment and care of patients with medical surgical conditions.
5. Develop skill in giving comprehensive nursing care to patients following the steps of nursing process.
6. Assist the patients and their families in identifying and meeting their own health needs.
7. Appreciate the role of the nurse in the medical surgical health team.

### **COURSE CONTENTS**

#### **UNIT I**

- Introduction to medical surgical nursing.
- Review of concepts of comprehensive nursing care in medical surgical conditions.
- Nurse, patient and his/her family.
- Functions of nurse in the outpatient department.
- Intensive care unit.

## **UNIT II**

- Nursing management of patient with specific problems.
- Fluid and electrolyte imbalance.
- Dyspnea and cough, respiratory obstruction
- Fever
- Shock
- Unconsciousness
- Pain Acute illness
- Incontinence

## **UNIT III**

Nursing management of patient with neurological and neurosurgical conditions.

Review of anatomy and physiology of the nervous system.

Pathophysiology, diagnostic procedures and management of:

- Cerebro-vascular accident.
- Cranial, spinal and peripheral neuropathies.
- Head-ache and intractable pain
- Epilepsy
- Infectious and inflammatory diseases and trauma of the nervous system.
- Common disorders of the system.
- Recent advances in diagnostic and treatment modalities.
- Drugs used in these disorders.
- Tumors of brain and spinal cord, congenital malformations, degenerative diseases.

## **UNIT IV**

Nursing management of patient with cardiovascular problems.

Review of relevant anatomy and physiology of cardio vascular system.

Pathophysiology, diagnostic procedures and management of

- Ischemic heart diseases.
- Cardiac arrhythmias.
- Congestive heart failure.
- Rheumatic and other valvular heart diseases.
- Endocarditis, cardiomyopathies, congenital heart, diseases, hypertension, heart block.

- Cardiac emergencies: cardiac arrest, acute pulmonary oedema, cardiac tamponade, cardiogenic shock, aneurysms and peripherovascular disorders, recent advancement in cardiology.

## **UNIT V**

Nursing management of patient with respiratory problems.

Review of anatomy and physiology of respiratory system, pathophysiology, diagnostic procedures and management of upper respiratory tract infections.

- Bronchitis
- Asthma
- Emphysema, empyema, Atelectasis, COPD
- Bronchiectasis
- Pneumonia
- Pulmonary tuberculosis
- Lung abscess
- Pleural effusion
- Tumours and Cysts
- Chest injuries
- Respiratory arrest and insufficiency
- Pulmonary embolism
- Drugs used in the management of these patients.
- Special respiratory therapies.

## **UNIT VI**

Nursing management of patient with genitor-urinary problems.

Review of anatomy and physiology of the genitor-urinary system

- Nephritis
- Renal Calculus
- Acute renal failure
- Chronic renal failure
- End stage renal disease

Special procedures, dialysis, renal transplant

Drugs used in management of these patients

Congenital disorders, urinary infections

Benign prostate hypertrophy.

## **UNIT VII**

Nursing management of patients with problems of the digestive systems.

Review of anatomy and physiology of gastrointestinal system and accessory organs.

Pathophysiology, diagnostic procedures and management of

- G.I.Bleeding
- Peptic ulcer
- Infections
- Acute abdomen
- Colitis, diarrhea, dysentery and mal-absorption syndrome.
- Cholecystitis
- Hepatitis, hepatic coma and cirrhosis of liver.
- Portal hypertension
- Pancreatitis
- Tumors, hernias, fistulas, fissures, hemorrhoids.

Drugs used in the management of these patients.

## **UNIT VIII**

Nursing management of patients with endocrine problems

Review of anatomy and physiology and patho-physiology of patients with

- Thyroid disorders
- Diabetes mellitus
- Diabetes insipidus
- Adrenal tumour
- Pituitary disorders
- Diagnostic procedures

Nursing management of patient with above problems.

Drugs used in endocrine problems.

## **UNIT IX**

Nursing management of patients with musculoskeletal problems.  
Review of anatomy and physiology and pathophysiology

- Arthritis, osteomyelitis, bursitis,
- Fractures, dislocation and trauma
- Prolapsed disc
- Osteomalacia and osteoporosis
- Tumor
- Amputation

Diagnostic procedures

Nursing management of patients with above problems.

Prosthesis and rehabilitation.

Transplant and replacement surgeries.

## **UNIT X**

- Nursing management of patients with disorders of female reproductive tract.
- Disorder of menstruation
- Infections of the genital tract
- Benign and malignant tumors of the genital tract
- R.V.F., V.V.F
- Climacteric changes and associated problems.

## **UNIT XI**

- Nursing management of patients with oncological disorders.
- Types of neoplasms and related pathophysiology
- Diagnostic procedures
- Modalities of treatment and nurse's role
- Special therapies –Chemotherapy and radiotherapy
- Preventive measures, other therapies.

## **UNIT XII**

- Nursing management of patient with burns.
- Nursing management of patient with reconstructive surgeries.

### **UNIT XIII**

Nursing management of patients with common communicable diseases and STD'S  
Nursing management of patient with immunological disorders including HIV/AIDS

### **UNIT XIV**

Nursing management of patients with diseases of eye, ear, nose, throat and skin.

### **UNIT XV**

Nursing management of patients with blood disorders  
Review of anatomy and physiology of blood and blood products.  
Patho-physiology, diagnostic procedures and management of blood disorders

- Anemia
- Leukemia
- Bleeding disorders
- Hemophilia
- Purpura etc.

Blood transfusion, safety checks, procedure and requirements, management 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.

### **UNIT XVI**

- Nursing in emergencies.
- Cardiac emergencies
- Trauma
- Poisoning
- Crisis management: Thyroid crisis, Hypertensive crisis, adrenal crisis.

## **PRACTICUM**

Students should be rotated in the selected medical and surgical areas, like cardio thoracic, neurology, urology, orthopedics, Gynecology, Oncology, burns and Reconstructive surgical units.

The students should be given patient assignment. They have to practice patient centered comprehensive nursing.

Each student is required to give planned health teachings, conduct clinical teaching, case presentation and drug study.

## **ENGLISH**

**Placement: First Year**

**Time allotted: Theory -60 hrs**

### **COURSE DESCRIPTION**

This course is designed to help the student understand and usage of English language required for their professional work.

### **OBJECTIVES**

After the course the students will develop

1. Ability to speak and write grammatically correct English
2. Effective skill in reading and understanding the English language
3. Skill in reporting

### **COURSE CONTENTS**

#### **UNIT I**

- Remedial study of grammar
- Review of grammar, vocabulary and effective use of dictionary
- Prepare task oriented seminars.
- Symposia and panel discussion.

#### **UNIT II**

The ability to understand selected passage and express meaning in one's own words.  
Reading and comprehension of the prescribed books.

### **UNIT III**

- The study of various forms of composition
- Note taking
- Diary
- Nurses notes, anecdotal records
- Writing of summary
- Nurses reports on health problems
- The student will submit one sample of each item from her own practical experience.

### **UNIT IV**

- Verbal communication
- Oral reports
- Summarization of discussion
- Debate
- Listening comprehension –Film, Cassette and Radio.

### **PRACTICUM**

The clinical experience in the wards and bed side nursing will provide opportunity for students to fulfill the objectives of learning language.

Assignment on writing and conversation through participation in discussion, debates, seminars and symposia. The students will gain further skills in task oriented communication.

## **II YEAR**

### **SOCIOLOGY**

**Placement: Second Year**

**Time allotted :Theory -60 hrs**

#### **COURSE DESCRIPTION**

This course it reorient students to sociology related to community and social institution in India and its relationship with health, illness and nursing.

#### **OBJECTIVES**

At the end of the course, the student will

1. Describe sociological concepts that are applicable to nursing.
2. Determine role of sociology in nursing as related to social institutions in India
3. Develop positive attitudes towards individual, family and community.

#### **COURSE CONTENTS**

##### **UNIT I**

Introduction

Importance of study of sociology in nursing, relationship of anthropology, sociology, etc.

##### **UNIT II**

- Individual and the society
- Socialization
- Interdependence of the individual and society
- Personal disorganization.

##### **UNIT III**

- Culture
- Nature of culture
- Evolution of culture
- Diversity and uniformity of culture

#### **UNIT IV**

- Social organization
- Social groups, crowds and public groups, nations, race.
- Social institutions: The family marriage, education, religion, arts, economic organization, political organization.
- The urban and rural community in India: Ecology, characteristics of the village, characteristics of the town and city.
- Social stratification: Class and caste.

#### **UNIT V**

- Social process
- Nature and process of social change: Factors influencing cultural change. Cultural lag.

#### **UNIT VII**

- Social problems
- Social disorganization, control and planning: poverty, population, housing, illiteracy, food supplies, growth of urbanization, prostitution, minority groups, rights of women and children, child labour, child abuse, delinquency and crime, substance abuse.

## **COMMUNITY HEALTH NURSING**

**Placement: Second Year**

**Time allotted: Theory – 60hrs  
Practical -240 hrs**

### **COURSE DESCRIPTION**

The course enables the students to understand the national health care delivery system and to participate in the delivery of community health nursing.

### **OBJECTIVES**

At the end of the course, the student will

1. Explain the concept of various factors contributing to health of individual, family and community.
2. Identify the role of community health nurse.
3. Describe national health care delivery system.
4. Describe epidemiological methods and principles of prevention and control of illness in the community.
5. Identify the role of personnel working in the community health set up.
6. Plan the work of community health nurse and supervise and train health workers.

### **COURSE CONTENTS**

#### **UNIT I**

- Introduction
- Introduction to community health –Concepts, Principles and elements of primary health care.
- Introduction to community health nursing.
- Concepts of community health nursing –community nursing process.
- Objectives, scope and principles of community health nursing.

#### **UNIT II**

- Family health services
- Concept, objectives, scope and principles.
- Individual family and community as a unit of service
- Principles and techniques of home visiting
- Establishing working relationship with the family.
- Working with families in relation to prevention of disease, promotion of health.

- Care of the sick in the home, physically handicapped and mentally challenged.
- Surveillance and monitoring

### **UNIT III**

- Organisation and administration of health services in India.
- National health policy
- Health care delivery system in India
- Health team concept
  
- Centre, State, district, urban health services, rural health services
- System of medicines
- Centrally sponsored health schemes
- Role of voluntary health organizations and international health agencies
- Role of health personnel in the community
- Public health legislation.

### **UNIT IV**

- Health Education
- Aims concepts and scope of the health education
- National plan for health education
- Communication techniques
- Methods and media for health education programmes
- Planning for health education and role of nurse

### **UNIT V**

- Role of the community health nurse.
- National health programmes
- Maternal and child health programmes
- Family welfare and school health services
- Occupational health services.
- As a member of the health team.
- Training and supervision of health care workers.

### **UNIT VI**

- Epidemiology
- Definition-concepts, aims, objectives, methods, principles
- Epidemiology – Theories and models
- Application of Epidemiology, principles and concepts in community health.

## **UNIT VII**

- Bio statistics and vital statistics
- Introduction, definition and scope, legislation
- Report, recording and compiling of vital statistics at the local, state, national and international level.
- Definitions and methods of computing vital statistics
- Methods of presenting data
- Management information system.

## **PRACTICUM**

Each student will prepare a community profile.

The students will be allotted families for gaining experience in identifying family health needs, health counseling and guidance and family budgeting for optimum health.

The students will participate in the activities of primary health centre, Sub-centre, MCH Centre.

Visits will be made to selected health and welfare agencies, water purification plant and sewage disposal plant, infectious disease hospital.

Conduct health educational programmes for individual/groups/community.

## **MENTAL HEALTH NURSING**

**PLACEMENT :SECOND YEAR**

**TIME ALLOTTED: Theory : -60 hrs  
Practical – 240 hrs**

### **COURSE DESCRIPTION**

This course enable the students to recognize and appreciate the causes, symptoms and process of abnormal human behaviour. It also introduces the student to the present day treatment modalities in the light of psychological, social and cultural factors affecting human behaviour. This course helps the student to learn principles of mental health and psychiatric nursing and to develop beginning skills in the management of the mentally ill in hospital and community.

### **OBJECTIVES**

At the end of course, the student will

1. Identify and describe the philosophy and principles of mental health nursing
2. Describe the historical development of mental health and psychiatric nursing
3. Classify mental disorders
4. Develop skill in history taking and performing mental status examination.
5. Describe etiological factors, psycho-pathology, clinical features, diagnostic criterial and treatment methods used for mental disorders.
6. Manage the patients with various mental disorders.
7. Communicate therapeutically with patients and their families.
8. Identify role of the nurse in preventive psychiatry.
9. Identify the legal aspects in practice of mental health and psychiatric nursing.

### **COURSE CONTENTS**

#### **UNIT I**

- Introduction and historical development
- History of psychiatry
- Historical development of mental health nursing
- Philosophy, principles of mental health and psychiatric nursing
- Concept of normal and abnormal behaviour

- Role and qualities of mental health and psychiatric nursing
- Mental health team and functions of team members
- Legal aspects in psychiatry and mental health services

## **UNIT II**

- Classification and assessment of mental disorders
- Terminologies used in psychiatry
- Classification of mental disorders
- Etiological factors and psychopathology of mental disorders
- History taking and assessment methods for mental disorders.

## **UNIT III**

- Therapeutic communication
- Communication process
- Interview skills, therapeutic communication techniques. Nurse patient Relationship, therapeutic impasse and it's management process recording.

## **UNIT IV**

- Management of mental disorders.
- Etiological factors, psychopathology, types, clinical features, diagnostic criteria, treatment and nursing management of patient with following disorders:
- Neurotic Disorders: Anxiety Neurosis, Depressive Neurosis, Obsessive compulsive Neurosis, phobic Neurosis and Hypochondriacal Neurosis, Stress related and somatoform disorders.
- Psychotic Disorders: Schizophrenic form, affective and organic psychosis.
- Organic Brain syndromes
- Psychosomatic disorders
- Personality disorders
- Disorders of childhood and adolescence.

## **UNIT V**

- Management of patients with substance use disorders
- Substance use and misuse.
- Dependence, intoxication and withdrawal
- Classification of psychoactive substances
- Etiological and contributory factors
- Psychopathology
- Clinical features
- Diagnostic criteria

- Treatment and nursing management of patient with substance use disorders.
- Preventive and rehabilitative aspects in substance abuse.

## **UNIT VI**

- Management of mental sub-normality
- Classification of mental sub-normality
- Etiological factors, psychopathology, psychometric assessment, diagnostic criteria and management of sub-normality.

## **UNIT VII**

- Psychiatric Emergencies
- Types of emergencies, psychopathology, clinical features, assessment and diagnosis, treatment and nursing management of patient with psychiatric emergencies.
- Crisis intervention therapy.

## **UNIT VIII**

### Therapeutic Modalities

Principles, indication, contraindications and role of nurse in various treatment methods:

- Therapeutic community and Milieu therapy
- Occupational therapy
- Psychotherapy
- Behaviour therapy
- Group therapy
- Family therapy
- Pharmacotherapy
- Electro convulsive therapy
- Other miscellaneous therapies.

## **UNIT IX**

- Preventive Psychiatry
  - Model of prevention
  - Role of nurse in preventive psychiatry
  - Psychiatric social work
  - Community mental health agencies
  - National mental health programmes
- health                      nursing

## **PRACTICUM**

The student will be provided opportunity to:

Observe, record and report the behavior of their selected patients.

Record the process of interaction

Assess the nursing needs of their selected patients, plan and implement the nursing intervention.

Counsel the attendant and family members of patient.

Participate in the activities of psychiatric team

Write observation report after a field visit to the following places:

Child guidance clinic,

School/Special Schools (For Mentally subnormal)

Mental Hospital

Community mental health centres,

De-addiction centre.

## **INTRODUCTION TO NURSING EDUCATION**

**Placement : Second year**

**Time Allotted: Theory -60 hrs**

**Practical -75 hrs**

## **COURSE DESCRIPTION**

This course introduced the students to principles and concepts of education, curriculum development and methods and media of teaching. It also describes the steps in curriculum development and implementation of educational programmes in nursing.

## **OBJECTIVES**

At the end of the course, the students will

1. Describe the philosophy and principles of education.
2. Explain the teaching – learning process
3. Develop the ability to teach, using various methods and media.
4. Describe the process of assessment.
5. Describe the administrative aspects of school of nursing
6. Participate in planning and organizing an in-service education programme.
7. Develop basic skill of counseling and guidance.

## **COURSE CONTENTS**

### **UNIT I**

#### Introduction to education

Meaning of education, aims, function and principles.  
Philosophy of education

### **UNIT II**

- Teaching learning process
- Nature and characteristics of learning
- Principles and maxims of teaching
- Formulating objectives
- Lesson planning.

### **UNIT III**

- Methods of teaching
- Teaching methods
- Lecture
- Discussion
- Demonstration
- Group discussion
- Project
- Role play
- Panel discussion
- Symposium
- Seminar
- Field trip
- Workshop
- Exhibition
- Programmed instruction
- Computer assisted learning
  
- Clinical teaching methods:
  - Case methods
  - Case presentation
  - Nursing rounds and reports
  - Bedside clinic
  - Conference(individual and group)

- Recording of interaction process

#### **UNIT IV**

- Educational media
- The communication process: factors affecting communication
- Purposes and types of audio-visual aids
- Graphics aid: Chalk-board, charts, graphs, posters, flash cards, flannel graph/khadigraph, bulletin, cartoon.
- Three dimensional aids: Objects, specimen, models, puppets.
- Printed aids: pamphlets and leaflets
- Projected aids: slides, films and televisions, VCR,VCP,Overhead projector, camera, microscope.
- Audio – Aids: Tape-recorder, public address system, computer

#### **UNIT V**

- Methods of assessment
- Purpose and scope of evaluation and assessment
- Criteria for selection of assessment techniques and methods
- Assessment of knowledge: essay type question, SAQ(Short Answer Questions)
- MCQ(multiple choice questions)
- Assessment of skills: Observation, check list. Practical examination, Viva, objective structured clinical examination.
- Assessment of attitude: Attitude scale.

#### **UNIT VI**

- Management of school of Nursing
- Planning of school of nursing, organization
- Recruitment of teaching staff, budget, facilities for the school, student selection and admission procedure, administrative planning for students, welfare services for students, maintenance of school records, preparation of annual reports. INC guidelines for school of nursing

#### **UNIT VII**

- Guidance and counseling definition
- Basic principles of guidance and counseling
- Organisation of guidance and counseling services
- Counselling process
- Managing disciplinary problems
- Management of crisis

## **UNIT VIII**

- In-service education
- Introduction to nature scope of in-service education programme
- Principles of adult learning
- Planning for in-sevice progamme
- Techniques, and methods of staff education programme
- Evaluation of in-service programme.

## **PRACTICUM**

Each student should:

Conduct five planned teaching using different methods and media

Prepare different types of teaching aids

Plan, organize and conduct inservice education programme.

Conduct at least one counseling session

Prepare rotation plans.

## **INTRODUCTION TO NURSING SERVICE ADMINISTRATION**

**Placement : Second year**

**Time Allotted: Theory -60 hrs  
Practical -180 hrs**

### **COURSE CONTENTS**

This course is designed to give an opportunity to the student to gain an understanding of the principles of administration and its application to nursing service. It is also intended to assist the students to develop an understanding of professional leadership need.

### **OBJECTIVES**

At the end of the course, the student will

1. Identify the principles of administration
2. Describe the principles and techniques of supervision
3. Explain the principles and methods of personnel management
4. Explain the principles of budgeting
5. Organise and manage a nursing unit effectively
6. Identify dynamics of organizational behaviour, styles and functions of effective leadership.

### **COURSE CONTENTS**

#### **UNIT I**

- Principles and practice of Administration
- Significance, elements and principles of administration,
- Organization of hospital – Definition ,Aims, functions and classifications, health team.
- Policies of hospital, different departments with special emphasis to department of nursing and office management.
- Responsibilities of the nursing personnel specially of ward sister, medico legal aspects, concept of cost effectiveness.

## **UNIT II**

- Nursing unit Management
- Physical layout of a nursing unit and necessary facilities
- Factors affecting the quality of nursing care
- Maintenance of a therapeutic environment
- Administration of the unit-management of patient care
- Maintenance of physical environment
- Assignment of duties and time plan.
- Patient assignment, safety measures, prevention of accidents and infections,
- Maintenance of patients records and reports, legal responsibilities.
- Maintenance of quality nursing care, nursing audit.

## **UNIT III**

- Personnel management
- Staff recruitment and selection, appointment, promotions, personnel policies and job descriptions.
- Job analysis.
- Staffing the unit, staffing norms, rotation plan, leave planning, performance appraisal, staff welfare and management of disciplinary problems.

## **UNIT IV**

- Supervision
- Principles of supervision, nature and objectives
- Tools and techniques of supervision
- Evaluation
- Nursing audit
- Staff development –orientation program
- Skill training
- Leadership development
- Problem solving process.

## **UNIT V**

- Material management
- Principles of material management
- Quality control

- Inventory, care of equipment, safekeeping
- Role of nursing personnel in material management.

## **UNIT VI**

- Financial Management
- Budgeting – Principles of budgeting, audit.

## **UNIT VII**

- Organizational behaviour
- Group dynamic and human relation, organizational communication (hospital information system)
- Public relations, leadership styles and functions
- Methods of reporting
- Maintaining records and reports

## **PRACTICUM**

Observe the functioning of nursing administration at various level i.e. institution, department, unit.

Each student will practice ward management under supervision.

Student will prepare rotation plan of the staff, write reports, give verbal report of the ward and assist in maintaining the inventory of the nursing unit.

Visit to private and government hospital and write observation reports.

## **INTRODUCTION TO NURSING RESEARCH AND STATISTICS**

**Placement :Second Year**

**Time Allotted: Theory -45 hrs**  
**Practical -120 hrs**

### **COURSE DESCRIPTION**

The course is designed to assist the students to develop an understanding of basic concepts of research and statistics, use the findings of nursing research in nursing practice, apply the knowledge in conducting projects(s) and solve problems related to nursing using scientific method.

### **OBJECTIVES**

At the end of the course, the students will:-

1. Define the terms and concepts of nursing research
2. Identify needs and scope of nursing research
3. Identify and define a research problem
4. Locate and list sources of literature for a specific study
5. Describe different research approaches, methods of data collection and sampling techniques with a special reference to survey method.
6. Develop tool for data collection
7. Enumerate steps of data analysis and present data summary in tabular form.
8. Use descriptive and co-relational statistics in data analysis
9. Conduct a group research project.

### **COURSE CONTENTS**

#### **A.INTRODUCTION TO RESEARCH METHODOLOGY**

##### **UNIT I**

- Steps of scientific methods.
- Definition of research
- Need for nursing research
- Characteristics of good research. Research process.

##### **UNIT II**

- Statement of research problem

- Statement of purpose and objectives
- Definition or research terms
- Review of literature.

### **UNIT III**

Research approaches:- historical, survey and experimental

### **UNIT IV**

- Sampling techniques and methods of data collection.
- Sampling
- Instruments-questionnaire. Interview
- Observation schedule, records, measurements
- Reliability and validity of instruments.

### **UNIT V**

- Analysis of Data: Tabulation
- Classification and summarization
- Presentation
- Interpretation of data

### **UNIT VI**

- Communication of research findings
- Writing Report:
- Organizing materials for writing
- Format of the report
- Use of computers

## **B.INTRODUCTION TO STATISTICS**

### **UNIT VII**

- Descriptive Statistics.
- Frequency Distribution –Types of measure – frequencies, class interval, graphic methods of describing frequency.
- Measures of central tendency –Mode, Median and mean.
- Measures of variability : Range, standard deviation
- Introduction to normal probability.

### **UNIT VIII**

- Correlation
- Computation by rank difference methods
- Uses of correlation co-efficient

## **UNIT IX**

Biostatistics: Crude rates and standardized rates, ratio and estimation of the trends.

## **UNIT X**

- Introduction to computers in nursing
- Introduction to computers and disk-operating system.
- Introduction to word processing
- Introduction to data base
- Windows applications, word, excel, power point, multimedia.
- Use of statistical packages.
- Introduction to internet & use of electronic mail
- Computer aided teaching and testing.

## **PRACTICUM**

Students will conduct research project in small groups in selected areas of nursing and submit a report(Group studies may include studying of existing health practices, improved practices of nursing (procedures) health records, patient records and survey on nursing literature)