**IIMT COLLEGE OF MEDICAL SCIENCES**

**IIMT UNIVERSITY**

**MEERUT**

**
SYLLABUS**

**POST BASIC B. Sc. NURSING**

**2019-20**

**STUDY AND EVALUATION SCHEME**

**POST** **BASIC B. Sc. NURSING**

 **SUMMARY**

|  |  |  |
| --- | --- | --- |
| **Programme**  | **:**  | POST Basic B.Sc. Nursing  |
| **Duration**  | **:**  | Two year (Annual System)  |
| **Medium**  | **:**  | English  |

**Minimum Required Attendance**

|  |  |
| --- | --- |
| theory | practical |
| 80% | for Appearing in examination | for getting Degree |
| 80% | 100% |

**Credit : 78**

**Maximum Credit :** 78

**Credit required for the degree: 78**

 **Assessment:**

|  |  |  |
| --- | --- | --- |
| **Internal** | **External** | **Total** |
| 25% | 75% | 100% |

**Internal Evaluation:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1st Sessional | 2nd Sessional | Assignment | Attendance/ class notes | Total |
| 5 | 5 | 10 | 5 | 25 |

**Evaluation of Practical/Dissertations & Project Reports**

|  |  |  |
| --- | --- | --- |
| **Internal** | **External** | **Total** |
| 50 | 50 | 100 |

**Duration of Examination**

|  |  |
| --- | --- |
| **External** | **Internal** |
| 3 hrs. | 3 hrs. |

To qualify the course a student is required to secure a minimum of 50% marks .A candidate who secures less than of 50% of marks in a course/subject shall be deemed to have failed in that course/subject.

A candidate failing in any number of subjects will be promoted to next higher class. The candidate shall clear all the subjects of previous years before appearing in the final year examination. If a candidate fails in either theory or practical, he/ she have to reappear in both. In case of qualifying examination the pass % would be 33% marks.

**Course code of study**

1st year

|  |  |  |  |
| --- | --- | --- | --- |
| S.No  | Subject  | Hours theory  | Hours practical  |
| 1 | Nursing Foundation  | 45 |  |
| 2 | Nutrition & Dietetics  | 30 | 15 |
| 3 | Biochemistry & Biophysics  | 60 |  |
| 4 | Psychology  | 60 | 15 |
| 5 | Maternal nursing  | 60 | 240 |
| 6 | Child health nursing | 60 | 240 |
| 7 | Microbiology  | 60 | 30 |
| 8 | Medical & surgical nursing  | 90 | 270 |
| 9 | English (Qualifying) | 60 |  |
|  | Total  | 525 | 810 |

Note: Hindi /local language as per the need of the institution.

2ndyear

|  |  |  |  |
| --- | --- | --- | --- |
| S. No  | Subject  | Hours theory  | Hours practical  |
| 1 | Sociology  | 60 |  |
| 2 | Community health nursing  | 60 | 240 |
| 3 | Mental health Nursing  | 60 | 240 |
| 4 | Introduction to nursing Education  | 60 | 75 |
| 5 | Introduction to nursing Administration  | 60 | 180 |
| 6 | Introduction to nursing Research & statistics  | 45 | 120 |
|  | Total  | 345 | 855 |

Scheme of examination

1styear

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Paper  | Subject  | Duration  | Int. Ass. | Ext. Ass. | Total M. |
| 1 | Nursing foundation  | 2 | 15 | 35 | 50 |
| 2 | Nutrition & Dietetics  | 2 | 15 | 35 | 50 |
| 3 | Biochemistry & 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 & surgical Nursing  | 3 | 25 | 75 | 100 |
| 9 | English (Qualifying) | 3 | 25 | 75 | 100 |

Practical

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Medical & Surgical nursing | 50 | 50 | 100 |
| 2 | Maternal nursing  | 50 | 50 | 100 |
| 3 | Child health nursing | 50 | 50 | 100 |

2nd 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 & Statistics  | 2 | 50 |  | 50 |

Practical’s

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | Community health nursing  | 50 | 50 | 100 |
| 2 | Mental health nursing  | 50 | 50 | 100 |
| 3 | Research project  | 50 | 0 | 50 |

* Note : Qualifying examination
* College examination not university examination

**Note:**

1. Teaching of anatomy, physiology, pharmacology and pathology will be integrated with clinical subject.

2. A minimum of 80% attendance in theory and practical/clinical in each subject is essential for appearing in the examination.

3. 100% attendance in practical/clinical in each clinical area is essential before award of degree.

4. 50 % of Minimum marks in each theory and practical paper separately is required for passing.

5. A Candidate has to secure minimum of 33% in qualifying subject for passing.

**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 the course, the students will

1. Identify professional aspects of nursing.
2. Explain theories of nursing.
3. Identify ethical aspects of nursing profession.
4. Utilize steps of nursing process.
5. Identify the role of the nurse 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 1**

* 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 on India and trends in nursing education
* Professional organizations, career planning
* Code of ethics & professional conduct for nurses.

**Unit II**

* Ethics, legal and other issues in nursing
* Concepts of health and illness, effects on the person
* Stress and adaptation.
* Health care concepts and nursing care concepts.
* Developmental concepts, needs, roles and problems of the development stages of individual –newborn, infant, toddler, pre-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: Different approaches to care, organizations and 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 concepts:
* Community oriented nursing
* Holistic nursing
* Primary nursing

Family oriented nursing concepts:

* Problem oriented nursing
* Progressive patient care
* Team nursing

**Nutrition & Dietetics**

**Placement: 1styear Time allotted : Theory – 30 hrs**

**Practical – 15 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 students will

1. Explain the principles and practice of nutrition and dietetics.
2. Plan therapeutic diets in different setting.
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 & macro.

**Unit** II

* Introduction to diet therapy.
* Routine hospital diets.
* Therapeutic diet under each unit i.e. cardiovascular diseases, gastrointestinal diseases, renal disorders, endocrine and metabolic disorders, allergy, infections and fevers. Pre and post-operativestage. 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.
* Feeding the sick child. Diet in diseases of infancy and childhood.
* Deficiency states- malnutrition and under nutrition.
* Feeding pre-school child: nutrition and needs, factors to be considered in planningdiets. Problems in feeding.
* School lunch programme: advantages, needs 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 nutrition foods. Nutrition educations- needs and methods.
* Methods of assessing nutritional status of individuals/group/community.
* Current nutritional problem and national programmes.

**Practicum**

1. Methods of cooking and cookery rules.
2. Simple preparation of beverages, soups, cereals and pulses, eggs, vegetables, meat.
3. Menu plans.
4. Preparation of supplementary food for infants.
5. Food for toddlers.
6. Low cost nutritious dishes for vulnerable groups.
7. Dietary case study of patent on special diet and planning of low cost dietary instructions for home adaptations.
8. Planning of therapeutic diets.

**Biochemistry & Biophysics**

**Placements: First year Time allotted :**

**Section A (Biochemistry)- Theory 30 hrs**

**Section B (Biophysics)- Theory 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 students 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 & 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 malabsorptionsyndrome.

**Unit IV**

* Carbohydrates: catabolism of carbohydrates for energy purpose.
* Mitochondrialoxidation 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 teat, hyperglycemia, hypoglycemia, glycemia.

**Unit V**

* Protein : amino acids, hormones.
* Essential amino acids. Biosyntesis of protein in the cells
* Rule 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 river 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

**Theory – 30 hours**

**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 for these principles in nursing.

**Unit IV**

* 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 on 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 wave length 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.
* 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.
* Radiationprotection units and limits, instruments used for detection of ionizing radiation, X-rays.

**Unit XI**

* Principles of electronics: common electronic equipments used in patient care.

**Practicum**

* Experiments and tests should be demonstrated whcrcvcr applicable.

**Psychology**

**Placements : First year Time allotted : Theory – 60 hrs**

**Practical – 15 hrs**

**Course description**

This course is designed to reorient and widen the student’s knowledge to fundamental of psychology.The student is offered an opportunity to apply the theoretical. Concepts in the clinical setting and thereby understand the psychodynamics of patient behavior. This course would also help the students to develop an insight into their own behavior.

**Objective**

At the end the course, the students will

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

**Course contents**

**Unit I**

* Introduction: definition of psychology, scope and methods of psychology.
* Relationship with other subject.

**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 nurising.

**Unit VIII**

* Intelligence and abilities : definition
* Intelligence and abilities: during sickness.
* Measurements 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**

* Concepts of mental hygiene & mental health
* Characteristics of a mentally healthy person.
* Defense mechanisms

**Practicum**

1. Simple experiments on :
2. Perception
3. Measuring thresholds
4. Reaction time
5. Administration of psychological tests
6. Observation and recording data :
7. Field observation
8. Interview
9. Case study
10. Self – rating

**Microbiology**

**Placements: 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 handing 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 micro- organisms.

**Objective**

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, mould, yeasts.

**Unit II**

* Identification of micro-organisms.
* Discussion of laboratory methods.
* Diagnosis of bacterial diseases.

**Practical:**

* Staining technique – 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 & 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: streprtococci, pneumococci and stapgylococci, 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 amoebiosis
* 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 though food.
* Food poisoning. Food borne infections.

**Practicum**

Each student will practice in the laboratory as indicated in each unit of the course 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**

**Placements: First year Time allotted : Theory – 60 hrs**

**Practical –240hrs**

**Course description**

This course is designed to enhance the students’ knowledge of obstetrics during pregnancy.Laborand puerperium.It also helps to acquire knowledge and develop skill in rendering optimum nursing care to a child bearing mother in a hospital of community and help in the management of common gynecological problems.

**Objective**

At end the course, the students will

1. Describe the physiology of pregnancy, labour and puerperium.
2. Manage normal pregnancy, labour and puerprium.
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
* Females pelvis (normal and contracted)
* Review of fetal 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 gynecological problems

**Unit IV**

* The new born baby
* Care of the baby at birth including resuscitation
* Essential newborn care
* Feeding
* Jaundice and infection
* Small & 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 haemorrhage
* Abnormal labour
* Uterine inertia
* Disorders of puerperium
* Management of engorged breast
* Puerperal sepsis
* Postpartumhaemorrhage
* Inversion and prolapse of uterus, obstetrical emergenies
* Obstetrical operations i.e. forceps, vacuum, episiotomy caesarean section

**Unit VI**

* Drugs in obstetrics
* Effects of drugs during pregnancy, labour and puerperium on mother & 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
2. Be posted in antenatal clinic, MCH clinic, antenatal ward, labour room, postnatal ward, maternity OT, MTP room.
3. Visit welfare agencies for women and write observation report.
4. Follow nursing process in providing care 3-6 patients.
5. Write at least two nursing care studies and do a presentation
6. Give at least one planned health teaching to a group of mother
7. Practice following nursing procedures.
8. Antenatal & post natal examinations, per vaginal exam.
9. Conduct normal delivery, stitching of episiotomy (For male candidates minimum conduct of 5 deliveries)
10. Motivate of family for adopting family planning methods.
11. Motivate family for Planned Parenthood.
12. Assist in various diagnostic and therapeutic procedures including insertion and removal.

**Child Health Nursing**

**Placements: First year Time allotted : Theory – 60 hrs**

**Practical – 240 hrs**

**Course description**

This course is developing and understanding of the modern approach to childcare, the common health problems of children and neonates in health and sickness.

**Objective**

At the end of the course, the students will

1. Explain the modern concepts 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 paediatric 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 welfare.
* Changing trends in hospital care, preventive, promotive and curative aspects of child health
* Differences morbidity and mortality rates.
* Hospital environment for a sick child
* Differencesbetween an adult and child
* The role of a pediatric nurse in caring for a hospitalized child
* Principles of pre and post-operative care of infants and children
* Pediatric nursing procedures.

**Unit II**

* The healthy child
* Growth and development form birth to adolescence
* The needs of normal children through the stages of development and parental guidance
* Nutritional needs of children & 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 managements of a low birth weight baby
* Nursing management common neonatal disorders.
* Organization of neonatal unit. Prevention of infections in the nursery.

**Unit IV**

* Nursing management in common childhood diseases
* Nutritional deficiency disorders
* Respiratory disorders and infections
* Gastrointestinal infections, infections and congenital disorders.
* Neurological infections and disorders –convulsions, epilepsy, meningitis, hydrocephalus, spinabifida
* Endocrine disorders – juvenile diabetes mellitus
* Disorders of skin eye and ears.
* Common communicable diseases in children, their identification, nursing management in hospital and home and prevention.
* Pediatricemergencies poisoning, foreign bodies, haemorrhage, burns and drowning.

**Unit V**

* Management of behavior disorders in children
* Management of challenged children:
* Mentally challenged
* Physically challenged
* Socially challenged

**Practicum**

The student will:-

1. Be posted in pediatric medical and surgical ward, OPD in hospital, health canter 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 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**

**Placements: First year Time allotted : Theory – 90 hrs**

**Practical – 270 hrs**

**Course description**

The purpose of this course is to widen the student’s knowledge and develop proficiency in caring for patients with Medical surgicalproblems. This course includes review of relevant anatomy and physiology, pathophysiology in medial surgical disorders and the nursing managements of these conditions.

**Objective**

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
* Acute illness
* Chronic illness
* Terminal illness
* Age related illness
* Patient undergoing surgery
* 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 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 & spinal cord, congenital malformations, degenerative diseases

**Unit IV**

* Nursing management of patient with cardiovascular problems.
* Review of relevant anatomy and physiology of cardio vascular
* Pathophysiology, diagnostic procedures and management of
* Ischemic heart diseases
* Cardiac arrhythmias.
* Congestive heart failure
* Rheumatic and other valvular diseases
* Endocarditis, cardiomyopathies, congenital heart diseases, hypertension, heart block

**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
* 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 system
* 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 & mal - absorptionsyndrome.
* 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, osteomytetis, 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 & 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
* Climatic 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
* Nursing management of patients with immunological disorders including HIV/AIDS

**Unit XIV**

* Nursing management of patients with diseases of eye, ear, nose, throat & skin

**Unit XV**

* Nursing management of patients with blood disorders
* Review of anatomy &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, procedures 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, adrenalcrisis

**Practicum**

* Students should rotated in the selected medical & surgical areas, like cardio thoracic, neurology , urology, Orthopedics, gynecology, oncology, burns and reconstructive surgical units
* The students should give 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**

**Placements: First Year time allotted: Theory – 60 hrs**

**Course description**

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

**Objective**

After the course the students will develop

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

**Course contents**

**Unit I**

* Remedial study if 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 objective 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.

**Sociology**

**Placements: Second Year time allotted: Theory – 60 hrs**

**Course description**

This course is to reorient students to sociology related to community and social institution in Indiaits relationship with health, illness and nursing

**Objective**

At the end of the course, the students 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.

**Units 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 &rural community in India: ecology, characteristics of the village, characteristics of the town and city.
* Social stratification: class and caste.

**Unit V**

* Social process
* Process of social interaction: competition, conflict-war, cooperation, accommodation and assimilation.

**Unit VI**

* Social change
* Nature and process of social change: factors influencing cultural change. Cultural lag.

**Unit VII**

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

**Community Health Nursing**

**Placements: Second Year Time allotted: Theory – 60 hrs**

**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.

**Objective**

At the end of the course, the students will

1. Explain the concepts 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
* Concepts, objective, 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**

* Organizationand administration of health services in India.
* National health policy
* Health care delivery system in India
* Health team concepts
* 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
* Public health legislation.

**Unit IV**

* Health education
* Aims, concepts and scope of 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, objective, methods, principles,
* Epidemiology – theories and models
* Application of epidemiology, principles and concepts in community health

**Unit VII**

* Bio statistics and vital statistics
* Introduction, definitions 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
* Management information system

**Practicum**

* Each students 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 center
* 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**

**Placements: Second Year Time allotted: Theory – 60 hrs**

**Practical – 240 hrs**

**Course description**

This course enables the students to recognize and appreciate the causes, symptoms and process of abnormal human behavior. It also introduces the students to the present day treatment modalities in the light of psychological, social and cultural factors affecting human behavior. 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 students will be able to:

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 criteria an d 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 mental health nursing
* Philosophy, principles of mental health and psychiatric nursing
* Concepts of normal and abnormal behavior
* Role and qualities of mental health and psychiatric nurse.
* 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
* Classificationof 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 patients relationship, therapeutic impasse and its 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 hypochondriacalneurosis. 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 & 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 nursing
* Community mental health agencies
* National mental health programmes.

**Practicum**

The students will be provided opportunity to:

* Observe : record and report the behavior of their selected patients
* Record the process of interaction
* Assess the nursing of their selected patients, plan and implement the nursing intervention.
* Council 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 clinical.
* School /special schools (for mentally subnormal).
* Mental hospital
* Community mental health centers
* De – addictioncentre.

**Introduction to Nursing Education**

**Placements: Second Year Time allotted: Theory – 60 hrs**

**Practical – 75hrs**

**Course description**

This course introduces the students to principles and concepts of education, curriculum development and methods and media of teaching.It’s 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 educationprogramme.
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
* Factors influencing development of philosophy of nursing 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
* Recording of interaction process.

**Unit IV**

* Educational media
* The communication process: factors affecting communication.
* Purpose 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: slides, films and televisions, VCR, VCP, overhead projector, camera, microscope.
* Audio-aids: tape-recorder, public, address, system, computer.

**Unit V**

* Methods of assessments
* Purpose and scope of evaluation and assessment
* Criteria for selection of assessment techniques and methods
* Assessment of knowledge : essay type question, SAQ
* Assessment of skills: observation, check list. Practical examination, viva, objective structured clinical examinations.
* Assessment of attitude : attitude scale

**Unit VI**

* Management of school of nursing
* Planning of school of nursing, organization.
* Recruitmentof teaching staff, budget, facilities for the school, students’ selection and admission procedure, administrative 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
* Organization of guidance and counseling service
* Counseling process
* Managing disciplinary problems
* Managing of crisis

**Unit VIII**

* In service education
* Introduction to nature and scope of in service education programmes
* Principles of adult learning
* Planning for in service programme
* 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**

**Placements: Second Year Time allotted: Theory – 60 hrs**

**Practical – 180hrs**

**Course contents**

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

**Objective**

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

1. Identify the principles of administration
2. Describe the principle and techniques of supervision
3. Explain the principles and methods of personnel management
4. Explain the principles of budgeting
5. Organize and manage a nursing unit effectively
6. Identify dynamics of organizational behavior, 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 classification, health team.
* Policies of hospital, different department with special emphasis to department of nursing & office management.
* Responsibilities of the nursing personal specially of ward sister, medico legal aspect, concepts 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 f the unit- management of patient care
* Maintenance of physical environment.
* Assignment of duties and time plan
* Patient assignment, safety measures, prevention of accidents
* 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 objective
* 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 behavior
* Group dynamic and human relation, organizational communication
* Public relations, leadership style and functions.
* Methods of reporting
* Maintaining records and reports.

**Practicum**

* Observe the functioning of nursing administration at various level i.e. institutions, department unit.
* Each students will practice ward management under supervision
* Students will prepare rotation plan of the staff, write reports, give verbal reports 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**

**Placements: Second Year Time allotted: Theory – 45hrs**

**Practical – 120hrs**

**Course description**

The course is designed to assist the students to develop an understanding of basic concepts of research and statistics, use the finding of nursing research in nursing practice, apply the knowledge in conducting project and solve problems related to nursing using scientificmethod.

**Objective**

 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 lobular form
8. Use descriptive and co-relational statistics in data analysis
9. Conduct a group research project

**Course contents**

1. **Introduction to research methodology**

**Unit I**

* Steps of scientific methods
* Definition of research
* Need for nursing research
* Characteristics of goodresearch, research process

**Unit II**

* Statement of research problems
* Statement of purpose and objective
* Definition of research terms.
* Review of literature

**Unit III**

* Research approaches:- historical, survey of data collection

**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 finding
* Writing report :
* Organizing materials for writing
* Format of the report
* Use of computers.
1. **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
* Window application, MS Word , Excel, Power Point, multimedia.
* Use of statistics package.
* Introduction to internet & use of electronic mail.
* Computer aided teaching & 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 exiting health practices, improved practices of nursing, health records, patient records and survey of nursing literature).