

I. Name of the program:

POST BASIC DIPLOMA IN CARDIO-THORACIC NURSING

II. Course Objectives

General Objective

At the end of the course the student will be able to develop an understanding of philosophy, principles, methods and issues, management, education and research in cardio-thoracic nursing. Furthermore, this course will enable them to develop skills and attitude in providing competent cardio-thoracic nursing care.

Specific Objectives:

At the end of the course student will be able to

1. Describe the concepts and principles of cardio-thoracic nursing.
2. Perform advance cardiac life support skills.
3. Apply nursing process in caring of patients with cardiothoracic diseases.
4. Communicate effectively with patients having cardiothoracic problems and their family members.
5. Demonstrate skills in management of cardio-thoracic services/units.
6. Participate effectively as a member of the cardiac care team.
7. Make a plan for organization of cardiac and thoracic units.
8. Conduct research in cardio-thoracic nursing.
9. Teach and supervise nurses and allied health workers.

III Admission Terms & Conditions

Eligibility:

1. General Nursing & Midwifery (G.N.M) or B.Sc. Nursing
2. For G.N.M. Candidates, one year experience as bedside nurse after passing the course.
3. Professionally registered as a nurse by Indian Nursing Council or any recognized State Nursing Councils of India.

Age limit: Upper age limit is 35 years relaxable by 3 years for OBC candidates, 5 years for SC/ST candidates, sponsored candidates and for qualified Ex-service personnel with a service of not less than 5 years.

Selection:

Selection will be made strictly in order of merit on the basis of percentage of marks obtained in the Common Entrance Examination, Objectives Structured Clinical Examination (OSCE) and viva-voce to be held at the Institute.

IV Number of seats:

10 per year and additional 1 sponsored candidate if they meet the selection criteria and sponsored by / Governmental agencies or Universities.

V. Organization of the course:

A. Duration: Duration of the course is one academic year.

B. Distribution of Course**C.**

Sl No		Weeks
1.	Teaching: Theory& Clinical practice.	42 weeks
2.	Internship	4 weeks
3.	Examination (including preparation)	2 weeks
4.	Vacation/Holidays	4 weeks
		52 weeks

Course of Studies

	Theory	Practical
1. Clinical Nursing I (Nursing foundation + Introduction to CVTS nursing)	155 Hours	Integrated Clinical Practice Hours (1280 Hours)
2. Clinical Nursing II	155 Hours	
3. Supervision & Management, Clinical Teaching, Elementary Research & Statistics		
(i) Supervision & Management (ii) Clinical Teaching (iii) Elementary Research & Statistics	30 hours 30 hours 30 hours	

4. Internship* (Clinical posting within in the speciality, selected based on student preference & project work, Ex- Heart Failure units)		160 hours
TOTAL	400 hours	1440 Hours

D. Hours distribution of theory and practice

1.	Total theory hours	400 hours
	Theory block	4 weeks X 40 hours/week= 160 hours
	Theory (integrated with clinical practice)	38 weeks X 6 hours/ week= 240 hours
2.	Clinical Practice (Integrated)	38 weeks x 34hours/week = 1280 hours
3.	Internship	4 weeks X 40 hours/week = 160 hours

E. Areas of Clinical Experience

Sl No	Units/Departments	No. of weeks
1.	Cardio-medical ICU(CCU + Heart Failure ICU)	8
2.	Cardiac surgical ICU(Adult)	8
3.	Congenital heart surgery ICU	4
3.	OTs (Pediatric & Adult)	8
4.	Diagnostic labs including cath lab	2
5.	Cardiac medical & Surgical wards	6
6.	OPD	2
7.	Internship	4
	Total	42 weeks

F. Examination Scheme

	Internal Assessment (Marks)	External Assessment (Marks)	Total Marks	Duration (in hours)
A.	Theory			
Paper I - Clinical Nursing I	50	150	200	3
Paper II- Clinical Nursing II	50	150	200	3
Paper III- Supervision & Management, Clinical Teaching, Elementary Research & Statistics	50	150	200	3
B. Practical				
Clinical Nursing (teaching & supervision to be integrated)	100	100	200	
Grand Total	250	550	800	

Condition for Admission to examination

The student:

1. Has attended not less than 85% of the theoretical instruction hours in each subject during the year.
2. Has done not less than 85% of the clinical practical hours. However the students should attain 100% of attendance for integrated practice experience in terms of hours and activities before awarding the certificate.

Examination

The examination to be conducted by the university recognized by Indian Nursing Council.

Standard of passing

1. In order to pass a candidate should obtain at least 50% marks separately in internal assessment and external examination in each of the theory and practical papers.
2. a. 75% and above- Distinction
b. 60% and above and below 75% - First Class
c. Less than 60% - Second Class
3. Students will be given opportunity of maximum of 3 attempts for passing

CURRICULUM

CLINICAL NURSING-1 (Nursing Foundation (review) +Introduction to Cardio medical and cardiac surgical conditions)

Description: The course is designed to develop an understanding of the principles of related biological and behavioural sciences and cardio-thoracic nursing.

Objectives:

At the end of the course the student will be able to :

1. Describe the concept and principles of behavioural, biological and nursing sciences as applied to cardio thoracic nursing.
2. Describe the various drugs used in cardio thoracic disorders and nurses responsibility.
3. Apply nursing process in providing comprehensive care to patients with cardio-thoracic disorders and emergencies
4. Practice infection control measures.
5. Describe the nurse's role in various diagnostic measures.
6. Identify the psychosocial problems of patients and family members and provide holistic care.
7. Plan the dietary regimen of patients with cardio-thoracic disorders
8. Assisting patient and family to cope with emotional and spiritual distress and grief anxiety.

Theory -155 hours

Subject	Hours	Content
Unit I Psychology	10	Review- Learning, Motivation, Stress & Coping in crisis situations, Leadership, Communication and IPR, Counselling, Attitude and humanizing care,
Unit II Microbiology	10	Review- Immunity, Infection, Principles of asepsis, Sterization & Disinfection, Standard Precautions & Bio-medical waste management.
Unit III Applied Anatomy & Physiology	20	Review- Respiratory System, Cardio vascular system, Neurological System, Endocrine system
Unit IV Pharmacology	10	Review- Pharmacokinetics, Drugs used in cardiac emergencies and cardiac conditions, Drug reaction & Toxicity.
Unit V		Review-Meaning of genetics &

Genetics	10	heredity Genetic disorders- Chromosomal errors, Inborn errors of metabolism, Congenital anomalies Genetic counselling, Nurses role in genetic counselling.
Unit VI	10	Introduction to cardio-thoracic nursing. Historical development & advancement in cardio-thoracic field. Cardio-thoracic diseases-major health problems. Cardio-thoracic surgery New technology, developments and nursing practice Levels of cardiac care and role of nurse
Unit VII	15	Introduction to nursing process- Assessment, Nursing Diagnosis, Nursing care plan, Implementation, Evaluation Cardio-thoracic Nursing Assessment
Unit VIII	30	Non-invasive & Invasive diagnostic measures in cardiac conditions.
Unit IX	20	Cardio-thoracic emergency interventions. • CPR – BLS & ACLS • Use of ventilator, Defibrillator, Pacemaker. • Post-resuscitation care.
Unit X	5	Diet in Cardio-thoracic conditions- Dietary Principles. Diet in Hypertension, CAD, Congestive cardiac failure.
Unit XI	10	Communication skills & IPR- Establishing & maintaining good IPR & communication with family, staff & colleagues, Multidisciplinary team & role of nurses
Unit XII	5	Care of dying patients- Spiritual support to the dying, Grief and grieving process, Bereavement support, Organ donation & Counselling, Care of dead.

CLINICAL NURSING -11(Cardio-medical and Cardiac surgical conditions-

Description: This course is designed to develop an understanding of cardio thoracic disorders, emergencies and their management.

Objectives

The student will be able to

1. Describe the etiology, pathophysiology, signs & symptoms, investigations, nursing management of adults & children with cardio thoracic disorders.
2. Describe nurse's role in various diagnostic & therapeutic procedures.
3. Discuss the pre and post operative nursing care of adult and children with cardio thoracic surgery.

Theory: 155 hours

Unit	Hours	Subject
Unit I	20	Cardio-thoracic disorders- Etiology, Clinical Manifestations, Pathophysiology and nursing management of: Coronary Artery Diseases, Acute Coronary Syndrome, Congestive Cardiac Failure, Pulmonary Oedema, Shock, Hypertension, Rheumatic Heart Disease, Inflammatory Heart Diseases, Infective Endocarditis, Myocarditis, Pericarditis Cardiomyopathy
Unit II	20	Pulmonary Conditions- Etiology, Clinical Manifestations, Diagnosis, pathophysiology and nursing management of: Embolism, Pulmonary Hypertension.
Unit III	5	Temporary and Permanent Pacemakers Types, Indications, Principles of pacing procedure, Patient teaching before, during and after pacing
Unit IV	5	Nursing care of patients after coronary Revascularization
Unit V	5	Nursing care of patients with Arterio-vascular diseases, Aortic Aneurysms
Unit VI	15	Cardiac Dysrhythmias- Interpretation, Management & Nurses' Role
Unit VII	5	Nursing care of patients with Intercoastal drainage tubes- Principles of under-water seal drainage,

		Equipment, set-up, assessment, Care of patient, complications
Unit VIII	15	Congenital Heart Diseases- Etiology, Pathophysiology, Clinical manifestations and Nursing management of: Embryological development of heart Cyanotic and Acyanotic Heart Diseases
Unit IX	10	Nursing care of pediatric patient with cardio-thoracic disorders. Review of growth and development. Psycho social aspects of pediatric care and family. Pre, peri and post operative cardio thoracic care. Pediatric pain assessment and management,
Unit X	40	Nursing care of patients undergoing cardio thoracic surgery Indications, Preoperative assessment and preparation, Patient teaching Intraoperative care: Principles of open heart surgery, Cardio pulmonary Bypass Surgical Procedures_ CABG, Valve Replacement / Reconstructive Surgeries, Cardiac Transplantation Recent advances in open heart Surgery Vascular Surgery Thoracic Surgery: Lobectomy, Pneumonectomy, Tumour Excision Management of immediate post-operative care, Intermediate and Late Post operative care Rehabilitation after cardiac surgery.
Unit XI	15	Nursing care of patients with Obstructive Airway- Assessment, Use of artificial airway, Endotracheal Intubation, Tracheostomy Oxygen Delivery Systems Mechanical Ventilation- Principles, Types of mechanical ventilation, Modes of ventilation, settings, Alarms Nursing assessment and interventions of ventilated patient, Care of a chronic ventilated patient.

SUPERVISION & MANAGEMENT, CLINICAL TEACHING, ELEMENTARY RESEARCH & STATISTICS

Total Hours : 90

- Supervision & Management: 30 hrs
- Clinical Teaching : 30 hrs
- Elementary Research & Statistics: 30 hrs

Description: This course is designed to develop an understanding of the principles of supervision and management, clinical teaching and research.

Objectives:

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

1. Describe professional trends
2. Describe role of nurse in management and supervision of nursing personnel in cardio-thoracic unit, ICCU & ICU.
3. Teach nurses & allied health workers about cardio-thoracic nursing.
4. Describe research process and perform basic statistical tests

Unit	Hours	Subject
Unit I	20	Supervision & Management- Principles. Elements, ICU & Coronary care Unit Management. Clinical Supervision- Principles & Managemnt Quality Assurance Programme in cardio-thoracic units. Performance Appraisal Staff Development
Unit II	5	Professional Trends- Introduction, Code of Ethics, Ethical Issies in Coronary care unit, Expanding role of nurse: Specialist nurse, Nurse Practitioner, Professional Organizations
Unit III	5	Medico-legal Aspects- Legislations and Regulations, Negligence & Malparactice, Legal Responsibilities of Nurses, Records & Reports, Professional practice issues in cardio thoracic unit
Unit IV	30	Teaching Learning process- Introduction & Concepts, Principles of teaching & learning, Teaching Methods,

		Evaluation
Unit V	30	Research- Basics, Types, Steps in research process, Review of Literature, Research Approaches, Sampling, Data collection Tools, Analysis, Communication of results, Plan & conduct research in cardio-thoracic area. Statistics and its applications.

Methods of Assessment

1. Written Examination
2. Assignments
3. Case studies/ Care Notes
4. Clinical Presentation
5. Seminars
6. Practical Manual
7. Project work