

I. Name of the program:

POST BASIC DIPLOMA IN NEUROSCIENCE 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 neuroscience nursing.

Specific Objectives:

At the end of the course student will be able to

1. Describe the concepts and principles of neuronursing.
2. Perform neurological assessments.
3. Apply nursing process in caring of patients with neurological conditions.
4. Demonstrate skills in performing various procedures related to neurological conditions.
5. Participate in preventive, promotive and rehabilitative aspects of neuropatients.
6. Organize and demonstrate skills in management of neuro services.
7. Make a plan for organization of neuro intensive units.
8. Conduct research in Neuroscience nursing.
9. Teach and supervise nurses and allied health workers.

III. Selection Criteria

Eligibility:

- (a) G.N.M. or B. Sc.Nursing
- (b) For G.N.M. Candidates, one year experience as bedside nurse after passing the course.
- (c) 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.

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

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

C. Course of Studies (Theory-& Practical Distribution)

	Theory	Practical
1. Clinical Nursing I (Nursing foundations (60 hrs)+ Introduction to Neuromedical + Neurosurgical nursing)	155 Hours	Integrated Clinical Practice Hours (1280 Hours)
2. Clinical Nursing II (Neuromedical +Neurosurgical conditions)	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	
1. Internship* (Clinical posting within in the speciality, selected based on student preference & project work, Ex-Stroke ICU)		
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

SI No	Units/Departments	No. of weeks
1.	Neuromedical ICU + Stroke ICU)	8
2.	Neurosurgical ICU	8
3.	Neuroradiology ICU	4
3.	Neuro OT	8
4.	Diagnostic labs including Interventional radiology lab	2
5.	Neuro/medical/ epilepsy ward & 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 1 - Clinical Nursing 1	50	150	200	3
Paper 11- Clinical Nursing 11	50	150	200	3
Paper 111- 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 State Nursing Registration Council/ State Nursing Examination Board/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.
 - a. 75% and above- Distinction
 - b. 60% and above and below 75% - First Class
 - c. Less than 60% - Second Class
2. Students will be given opportunity of maximum of 3 attempts for passing.

CURRICULUM

CLINICAL NURSING-1 (Nursing Foundations (Review) + Introduction to Neurological & Neurosurgical conditions)

Description: The course is designed to develop an understanding of the principles of related biological and behavioural sciences and neuroscience nursing including neurological assessment, diagnostic procedures and advance life support.

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 neuroscience nursing.
2. Describe the concepts and principles of neuroscience nursing.
3. Apply nursing process in caring of neuropatients.
4. Perform neurological assessment and assist in diagnostic procedures.
5. Identify the psychosocial problems of patients and family members and provide holistic care.
6. 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	5	Sociology- Review- Social Organization & Community Resources, Leadership roles in community, Family and family relationships.
Unit III Microbiology	10	Review- Immunity, Infection, Principles of asepsis, Sterization & Disinfection, Standard Precautions & Bio-medical waste management.
Unit IV Applied Anatomy & Physiology	20	Review- Nervous System, Sensory Organs, Respiratory System, Cardio vascular System, Endocrine system, Musculoskeletal system, Genitourinary & Reproductive System.
Unit V Pharmacology	10	Review- Pharmacokinetics, Drugs used in neuro emergencies and neurological conditions, Drug reaction & Toxicity.
Unit VI		Review-Meaning of genetics &

Genetics	08	heredity Genetic disorders- Chromosomal errors, Inborn errors of metabolism, Congenital anomalies Genetic counselling, Nurses role in genetic counselling.
Unit VII	10	Advance Life Support- Airway management, Bag & Mask ventilation, Chest Compression, Endo-tracheal Intubation
Unit VIII	10	Communication skills & IPR- Establishing & maintaining good IPR & communication with family, staff & colleagues, Multidisciplinary team & role of nurses
Unit IX	15	Introduction to neuroscience nursing. History- Development in neurological and neuroscience nursing. Neurological & Neurosurgical conditions-major health problems, New technology, developments and nursing practice Role of nurse in neuroscience- curative, preventive, promotive and rehabilitative services.
Unit X	7	Neurological Examination- Neurological assessment, interpretation & its relevance to nursing.
Unit XI	10	Non-invasive & Invasive diagnostic measures in neuroconditions.
Unit XII	10	Pre and Postoperative management of patient- Nurses Role 1. Preoperative nursing care 2. Post operative nursing management 3. Care of unconscious patient.
Unit XIII	20	Operation Theatre- Physical set up, Equipment, Aseptic Techniques, Setting trays for various operative procedures.
Unit XIV	10	Speech & Language- Characteristics of normal & disordered speech, Factors affecting speech, Neurogenic communication disorders, Management of patients with deficits in communication skills.

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CLINICAL NURSING -11(Neurological and Neurosurgical conditions)

Description: This course is designed to develop an understanding of the principles of nursing management of patients with neurological, neurosurgical disorders including their rehabilitation.

Objectives

At the end of the course student will be able to

1. Describe the various neurological & neurosurgical disorders.
2. Provide nursing care to patients with neurological and neurosurgical disorders following nursing process approach.
3. Provide nursing care to unconscious and neurologically disabled patient.
4. Participate in preventive, promotive and rehabilitative services for neurological and neurosurgical patients.

Theory : 155 hours

Unit	Hours	Subject
Unit I	15	Neuro infections- Etiology, Clinical Manifestations, Diagnosis, pathophysiology and nursing management of various viral, bacterial, fungal and parasitic infections of brain.
Unit II	15	Traumatic Conditions- Etiology, Clinical Manifestations, Diagnosis, pathophysiology and nursing management of: Cranio cerebral injuries, Spinal & spinal cord injuries, Peripheral nerve injuries.
Unit III	20	Cerebro vascular diseases- Etiology, Clinical Manifestations, Diagnosis, pathophysiology and nursing management of: Stroke& arterio-venous thrombosis, Intracranial aneurysms, Subarachnoid hemorrhage, Arterio-venous fistula Diseases of cranial nerves, Trigeminal neuralgia, Facial Palsy, Bulbar Palsy.
Unit IV	10	Paroxysmal Disorders: Etiology, Clinical Manifestations, Diagnosis, pathophysiology and nursing management of: Epilepsy,

		Status Epilepticus, Syncope, Menier's Syndrome.
Unit V	15	Degenerating and demyelinating disorders- Etiology, Clinical Manifestations, Diagnosis, pathophysiology and nursing management of: Motor Neuron Disease, Movement Disorders, Dementia, Parkinson's Disease, Multiple Sclerosis, Alzheimer's Disease.
Unit VI	15	Developmental Disorders. Etiology, Clinical Manifestations, Diagnosis, pathophysiology and nursing management of: Hydrocephalus, Craniostenosis, Meningomyelocele, Encephalocele, Spina bifida, syringomyelia, cerebrovascular system anomalies, Cerebral palsies.
Unit VII	10	Neuromuscular Disorders: Etiology, Clinical Manifestations, Diagnosis, pathophysiology and nursing management of: Polyneuritis- Guillain Barre Syndrome, Muscular Dystrophy, Myasthenia Gravis, Cerebral palsy, Bell's Palsy
Unit VIII	10	Neoplasms- Surgical Conditions: Etiology, Pathophysiology, Clinical manifestations and Nursing management of: Brain tumours, Increased Intracranial Pressure- Clinical Presentation & Management.
Unit IX	10	Physiotherapy and Rehabilitation
Unit X	30	Therapeutic activities- Measures for hyperthermia, Measures for paraplegia & quadriplegia, Care of patients with incontinence, Rehabilitation of individual with deficits due to neurological & neurosurgical conditions- Nurses role.
Unit XI	5	Legal and ethical issues related to neuroscience nursing.

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 neurocare.
3. Teach nurses & allied health workers about neuronursing.
4. Describe research process and perform basic statistical tests
5. Plan and conduct research in Neuronursing.

Unit	Hours	Subject
Unit I	20	Supervision & Management- Principles. Elements. ICU & Neurocritical care management. Clinical Supervision- Principles & Managemnt Quality Assurance Programme in Neuro units. Performance Appraisal Staff Development
Unit II	5	Professional Trends- Introduction, Code of Ethics, Ethical Issues, Expanding role of nurse: Specialist nurse, Nurse Practitioner, Professional Organizations
Unit III	5	Medico-legal Aspects- Legislations and Regulations, Negligence & Malpractice, Legal Responsibilities of Nurses, Records & Reports, Professional practice issues in neurounits.
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 Statistics and its applications
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Methods of Assessment

1. Written Examination
2. Assignments
3. Case studies/ Care Notes
4. Clinical Presentation
5. Seminars
6. Practical Manual
7. Project work- A clinical nursing project work to be done by a pair of two students.