

CURRICULUM

OF

POST BASIC DIPLOMA IN

CRITICAL CARE NURSING

PHILOSOPHY OF THE PROGRAM

The College of nursing is a constituent unit of MGM Institute of Health Sciences (MGMIHS) Navi Mumbai. The philosophy of the college of nursing is consistent with the philosophy of MGMIHS and Indian Nursing Council.

We believe that

- registered nurses need to be trained in critical care nursing in clinical settings in order to provide competent care to critically ill patients.
- registered nurses need to be prepared as per the expanding roles of nurses and advances in technology for effective participation in critical care.

PURPOSE:

The purpose of the course is to train nurses to:

1. Provides quality care to critically ill patients.
2. Manage and supervise care of critically ill patients.
3. Teach nurses, allied health professionals and family members in areas related to critical care nursing.
4. Conducts research in areas of critical care nursing.

COURSE DESCRIPTION

The course is designed to prepare registered nurses (GNM or B.Sc.) with specialized knowledge, skills and attitude in providing advance quality care to critically ill patients and their families at all the three levels of care.

Post Basic Diploma in Critical Care Nursing

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 critical care nursing. Furthermore, this course will enable them to develop skills and attitude in providing competent critical care nursing.

SPECIFIC OBJECTIVES:

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

1. Describe the concepts and principles of critical care nursing.
2. Communicate effectively with critically ill patients and their family members.
3. Perform advance cardiac life support skills
4. Apply nursing process in caring of critically ill patients.
5. Participate effectively as a member of the health team.
6. Organize and demonstrate skills in management of critical care nursing services.
7. Make a plan for organization of critical care units.
8. Conduct research in critical care nursing.
9. Teach and supervise nurses and allied health workers.

ADMISSION TERMS AND CONDITIONS

The student seeking admission to this course should:

1. Be a registered nurse (R.N. &R.M.) or equivalent.
2. Possess a minimum of one year experience as a staff nurse.
3. Nurses from other countries must obtain an equivalence certificate from INC before admission.
4. Be physically fit.
5. No of seats
 - Hospital which is having 250 – 500 beds (8-10 ICU beds) no. of seats = 5 -10
 - Hospital which is having 500 beds (20 or more ICU beds) no. of seats = 10 - 20

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DURATION

Course Duration	=	1 Years
Teaching: Theory & clinical Practice	=	42 weeks
Internship	=	4 week
Examination (including preparatory leave)	=	2 weeks
Vacation	=	2 weeks
Public Holidays	=	2 weeks

COURSE OF INSTRUCTIONS

Sr. No.	SUBJECT	THEORY (IN HRS)	PRACTICAL (IN HRS)
1.	Critical Care Nursing – I (Inclusive of Foundation Courses)	155	1280 (Integrated clinical practice)
2.	Critical Care Nursing – II	155	
3.	Supervision and Management, Clinical Teaching, Elementary Research and Statistics		
	i.) Supervision and Management	30	
	ii.) Clinical Teaching	30	
	iii.) Elementary Research and Statistics	30	
4.	Internship		160
	Total hours	400	1440
	Total hours = 1840 hrs		

HOURS DISTRIBUTION FOR THEORY AND PRACTICE

- Available hours = 42 weeks x 40 hours/ week = 1680 hours
- Block Classes = 4 weeks x 40 hours/ week = 160 hours
- Integrated theory and clinical practice = 38 weeks x 40 hours/ week = 1520 hours
- Theory hours = 38 weeks x 6 hours/ week = 240 hours
- Clinical Experience = 38 weeks x 34 hours/ week = 1280 hours
- Internship = 4 weeks x 40 hours/ week = 160 hours

SCHEME OF EXAMINATION

Subject	Duration Hours	Internal assessment marks	External examination marks	Total marks
A. Theory				
Paper I- Clinical Nursing I	3	25	75	100
Paper II- Clinical Nursing II	3	25	75	100
Paper III - Supervision and Management, Clinical Teaching, Elementary Research and Statistics	3	25	75	100
B. Practical				
Clinical Nursing (teaching & supervision to be Integrated)		100	100	200
Grand Total		175	325	500

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GENERAL RULES FOR UNIVERSITY YEARLY EXAMINATION

A. Condition for admission to Examination

1. The student has attended not less than 75 % of the theoretical instruction hours in each subject during the year.
2. The student has done not less than 75 % of the clinical practical hours. However, students should make up 100% of attendance in term of hours and activities before awarding the certificate.

B. Examination Body

3. The examination will be conducted by the **University recognized** by the Indian Nursing Council.

C. Standard of Passing

4. In order to pass a candidate should obtain at least 50% marks separately in internal and external examination in each of the theory and practical papers.
5. Grades are as follows
 - a) Second division = Less than 60%
 - b) First division = 60 % and above and below 75%
 - c) Distinction = 75 % and above
6. Students will be given opportunity of maximum of 3 attempts for passing.

CERTIFICATION

1. Title – Post Basic Diploma in **Critical care nursing**
2. A diploma is awarded upon successful completion of the prescribed study programme, which will state that,
 - a. Candidate has completed the prescribed course of Critical Care Nursing.
 - b. Candidate has completed prescribed clinical experience.
 - c. Candidate has passed the prescribed examination.

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CRITICAL CARE NURSING –I
(Including Foundation Courses)**Theory: 155 hours**

Course Description –This course is designed to develop an understanding of the concepts, principles and practices of biological and behavioural sciences in caring for critically ill patients.

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 critical care nursing.
2. Describe various drugs used in critical care and nurses' responsibility.
3. Describe the concepts, principles of critical care Nursing.
4. Identify the sources of stress and manage burnout syndrome among health care providers.
5. Identify the psychosocial problems of patients and family members and provide holistic care.
6. Apply nursing process in providing comprehensive care to critically ill patients.
7. Practice infection control measures.
8. Assess and manage pain.
9. Recognize the nutritional needs of critically ill patients and their management.
10. Identify various coping strategies in order to assist in relieving emotional and spiritual distress among patient and family members.

Unit	Hrs	Theory	Hrs	Practical
I	9	Psychology Review <ul style="list-style-type: none"> <input type="checkbox"/> Individual differences <input type="checkbox"/> Learning, motivation, attention and perception <input type="checkbox"/> Emotions <input type="checkbox"/> Human behaviour and needs in crisis. <input type="checkbox"/> Stress and coping in crisis situation <input type="checkbox"/> Leadership <input type="checkbox"/> Communication and IPR <input type="checkbox"/> Counseling <input type="checkbox"/> Attitudes and humanizing care 	1	Role play on Counselling of patient or relatives.
II	10	Sociology Review <ul style="list-style-type: none"> <input type="checkbox"/> Social organization and community resources <input type="checkbox"/> Leadership roles in community. <input type="checkbox"/> Family and family relationship <input type="checkbox"/> Socio cultural influences 		

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Unit	Hrs	Theory	Hrs	Practical
III	6	Microbiology Review <ul style="list-style-type: none"> <input type="checkbox"/> Immunity <input type="checkbox"/> Infection <input type="checkbox"/> Principles of asepsis <input type="checkbox"/> Sterilization and disinfection <input type="checkbox"/> Diagnostic tests in Microbiology & related nurses' responsibility. <input type="checkbox"/> Standard safety measures <input type="checkbox"/> Biomedical waste management 	4	Visit to CSSD
IV	20	Applied Anatomy and physiology Review <ul style="list-style-type: none"> <input type="checkbox"/> Neurological system <input type="checkbox"/> Respiratory system <input type="checkbox"/> Cardiovascular system <input type="checkbox"/> Gastro intestinal system <input type="checkbox"/> Endocrine system <input type="checkbox"/> Musculoskeletal system <input type="checkbox"/> Genitourinary system <input type="checkbox"/> Reproductive system. <input type="checkbox"/> Sensory organs. 		
V	28	Pharmacology Review <ul style="list-style-type: none"> <input type="checkbox"/> Pharmacokinetics, Drug reactions and toxicity <input type="checkbox"/> Principles of drug administration , role of nurses and care of drugs <input type="checkbox"/> Blood and blood components <input type="checkbox"/> Colloids and crystalloids <input type="checkbox"/> Drugs used in critical care units and various body systems. <ul style="list-style-type: none"> ▪ Analgesics / Anti inflammatory agents ▪ Antibiotics ▪ Antiseptics ▪ Inotropic ▪ Antihypertensive ▪ Antianginals ▪ Antiaarythmics ▪ Anticoagulants ▪ Thrombolytic ▪ Antiplatelets ▪ Haemostatic / antihemmorhagic ▪ Antiepileptic ▪ Bronchodilators ▪ Antihistaminic, anti-allergy, Antidotes ▪ Potassium chloride, calcium gluconate, sodabicab 	2 hrs	Drug calculation Operating <ul style="list-style-type: none"> ▪ syringe pump ▪ infusion pump ▪ metered dose inhaler

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Unit	Hrs	Theory	Hrs	Practical
VI	8	Introduction to Critical Care Nursing <ul style="list-style-type: none"> <input type="checkbox"/> Historical review <input type="checkbox"/> Concepts of critical care nursing <input type="checkbox"/> Principles of Critical care nursing <input type="checkbox"/> Scope of critical care nursing <input type="checkbox"/> Critical care unit set up including equipment <input type="checkbox"/> Supplies, use and care of various type of monitors, ventilators etc. <input type="checkbox"/> Flow sheets 	2	Prepare a model of Critical Care Unit
VII	15	Concepts of Holistic care applied to critical care nursing practice <ul style="list-style-type: none"> <input type="checkbox"/> Psychological and psychosocial impact of critical care unit on patients. <ul style="list-style-type: none"> ▪ Risk factors and assessment of patients ▪ Critical care psychosis ▪ Prevention and nursing care of patient affected with psychophysiological and psychosocial problems of critical care units ▪ Caring for patient's family and family teaching. <input type="checkbox"/> The dynamic of healing in critical care unit <ul style="list-style-type: none"> ▪ Dynamics of touch ▪ Relaxation ▪ Music therapy ▪ Guided imaginary <input type="checkbox"/> Stress & burnout syndrome among health team members. 		
VIII	5	Pain Management <ul style="list-style-type: none"> <input type="checkbox"/> Theories of pain <input type="checkbox"/> Types of pain <input type="checkbox"/> Pain assessment <input type="checkbox"/> Systemic response to pain <input type="checkbox"/> Pain management <input type="checkbox"/> Sedation in critically ill patients. <input type="checkbox"/> Placebo effect 		
IX	10	Infection control in intensive care <ul style="list-style-type: none"> <input type="checkbox"/> Nosocomial infection in intensive care unit <input type="checkbox"/> Methyl resistant staphylococcus aureus (MRSA) <input type="checkbox"/> Disinfection <input type="checkbox"/> Sterilization <input type="checkbox"/> Standard precautions <input type="checkbox"/> Prophylaxis for staff 		
X	10	Introduction to Nursing Process <ul style="list-style-type: none"> <input type="checkbox"/> Assessment <input type="checkbox"/> Nursing diagnosis <input type="checkbox"/> Nursing care plan <input type="checkbox"/> Implementation <input type="checkbox"/> Evaluation 		

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Unit	Hrs	Theory	Hrs	Practical
XI	8	Communication skills and IPR <ul style="list-style-type: none"> <input type="checkbox"/> Process and methods <input type="checkbox"/> Establishing and maintaining good IPR & communication with family, staff and colleagues <input type="checkbox"/> Multidisciplinary team and role of nurses <input type="checkbox"/> Guidance and counseling 	2	Role play on counseling
XII	8	Nutritional management in the critically ill patient <ul style="list-style-type: none"> <input type="checkbox"/> Assessing nutritional status of patient <input type="checkbox"/> Implications of undernourishment in critically ill patients <input type="checkbox"/> Fluid and electrolyte management <input type="checkbox"/> Administering nutrition support <input type="checkbox"/> Therapeutic diet <ul style="list-style-type: none"> ▪ Enteral nutrition ▪ Total parenteral nutrition ▪ Diet for various disease conditions 	2	Prepare diet plan
XIII	5	Care of dying patients <ul style="list-style-type: none"> <input type="checkbox"/> Spiritual support to the dying <input type="checkbox"/> Grief and grieving process <input type="checkbox"/> Bereavement support <input type="checkbox"/> Organ donation and counseling <input type="checkbox"/> Care of dead. 		

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2. Dodge Fernald and Peter S. Fernald, Introduction to Psychology, AITBS.
3. Jacob Anthikad, Psychology for Graduate Nurses, Jaypee.
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4. Chaudhari K.D. Pharmacology for nurse and allied profession..
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Nutrition

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Fundamentals of Nursing

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9. The Lippincott Manual of Nursing practice, Nettina, Sandra, Lippincott Williams & Wilkins, Philadelphia.

SCHEME OF EXAMINATION

Sr. No	Theory Exam	Marks allotted	Duration in hours
1	Internal Assessment	25	-
2	External Assessment	75	3
	Total	100	

INTERNAL ASSESSMENT**(25 MARKS)**

Sr. No	Item	Marks allotted	Weightage (%)	Marks out of 25
1.	First term Exam	50	20	5
2.	Pre-final Exam	75	30	7.5
3.	Assignments			
	a) Seminar	25	20	5.0
	b) Drug book	25	20	5.0
4.	Attendance		10	2.5
	Total	175	100	25

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CRITICAL CARE NURSING –II

Theory: 155 hours

Course Description –This course is designed to develop an understanding of common critical conditions of cardiovascular, respiratory, neuro, gastrointestinal, renal systems, burns, trauma, pediatric and obstetric emergencies and their management.

Objectives:

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

1. Describe the etiology, pathophysiology, signs & symptoms, investigations, medical & surgical management & complications of cardiovascular, respiratory, neuro, gastrointestinal, renal systems, burns, trauma, pediatric & obstetric emergencies.
2. Describe nurses role in various diagnostic and therapeutic procedures.
3. Provide comprehensive care to patients with critical care conditions of cardiovascular, respiratory, neuro, gastrointestinal, renal systems, burns, trauma, paediatric and obstetric emergencies using nursing process.

Unit	Hrs	Content	Hrs	Practical
I	14	Gastro intestinal system Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management: medical, surgical and nursing management of : - <input type="checkbox"/> Acute gastrointestinal bleeding, <input type="checkbox"/> Hepatic disorders:- Fulminant hepatic failure, hepatic encephalopathy, <input type="checkbox"/> Acute pancreatitis, <input type="checkbox"/> Acute intestinal obstruction, perforative peritonitis.	1	Assisting for Endoscopy Performing Gastric Lavage Insertion of Orogastric tube
II	10	Renal System Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management: medical, surgical and nursing management of : - <input type="checkbox"/> Acute renal failure, chronic renal failure, acute tubular necrosis, bladder trauma. <input type="checkbox"/> Management modalities <ul style="list-style-type: none"> • Haemodialysis, • peritoneal dialysis, • Continuous ambulatory peritoneal dialysis, • Continuous arterio venous hemodialysis, • renal transplant 		
III	13	Nervous System Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management: medical, surgical and nursing management of : -	2	Assisting in monitoring ICP.

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Unit	Hrs	Content	Hrs	Practical
		<input type="checkbox"/> Common neurological disorders:- <ul style="list-style-type: none"> • Cerebrovascular accident • Seizure disorders, • Guillein-barre-syndrome, • Myasthenia gravis, • Coma, persistent vegetative state, encephalopathy • Head injury, spinal cord injury. <input type="checkbox"/> Assessment of intracranial pressure, management of intracranial hypertension, craniotomy <input type="checkbox"/> Problems associated with neurological disorders Thermo regulation, unconsciousness, herniation syndrome		Neurological assessment(GCS)
IV	10	Endocrine system Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management: medical, surgical and nursing management of:- <ul style="list-style-type: none"> <input type="checkbox"/> Hypoglycemia, DM <input type="checkbox"/> Diabetic ketoacidosis <input type="checkbox"/> Thyroid crisis <input type="checkbox"/> Myxedema coma, <input type="checkbox"/> Adrenal crisis, <input type="checkbox"/> syndrome of inappropriate hypersecretion of Antidiuretic Hormone (SIADH). 		
V	20	Management of other Emergency Conditions <ul style="list-style-type: none"> <input type="checkbox"/> Trauma: Mechanism of injury, Thoracic injuries, Abdominal injuries, Pelvic fractures, Complications of trauma, Head injuries. <input type="checkbox"/> Shock: Shock syndrome, Hypovolemic, cardiogenic, Anaphylactic, Neurogenic , Septic shock <input type="checkbox"/> Systemic Inflammatory Response: The inflammatory response, Multiple organ dysfunction syndrome <input type="checkbox"/> Disseminated intravascular Coagulation, Drug over dose and poisoning, AIDS: Acquired Immunodeficiency syndrome. 		
VI	15	Intensive cardiothoracic Nursing <ul style="list-style-type: none"> <input type="checkbox"/> Principles of Nursing in caring for patients with Cardio thoracic disorders <ul style="list-style-type: none"> • Assessment: cardiovascular System, Heart sounds, • Diagnostic studies:- Cardiac enzymes studies, electrocardiographic monitoring, holter monitoring, stress test, echo cardiography, coronary angiography, nuclear medicine studies. 	10	Management Modalities <ul style="list-style-type: none"> • Administration of Thrombolytic therapy,

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Unit	Hrs	Content	Hrs	Practical
		<ul style="list-style-type: none"> □ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management: medical, surgical and nursing management of : - <ul style="list-style-type: none"> • Hypertensive crisis, • Coronary artery disease, • Acute Myocardial Infarction, • Cardiomyopathy, • Deep vein thrombosis, • Valvular diseases, • Heart block, • Cardiac arrhythmias & conduction disturbances, • Aneurysms, • Endocarditis, • Heart failure, • Cardio pulmonary resuscitation-BCLS/ACLS □ Management Modalities <ul style="list-style-type: none"> • Thrombolytic therapy, • Pacemaker- temporary & permanent, • Percutaneous transluminal coronary angioplasty, • Cardioversion and Defibrillations, • Intra Aortic Balloon Pump, • Cardiac surgeries, CABG (On and off pump), MICAS, Valvular surgeries, • Heart Transplantation, • Autologus Blood Transfusion, • Radiofrequency Catheter Ablation. • AICD implantation 		<ul style="list-style-type: none"> • Assisting for insertion of Pacemaker-temporary & permanent, • Preparation and care of patient Percutaneous transluminal coronary angioplasty (PTCA), • Assisting for PTCA • Cardioversion and Defibrillations, • Intra Aortic Balloon Pump, • Care of patient with Cardiac surgeries, CABG (On and off pump), MICAS, Valvular surgeries, Heart Transplantation, • Autologus Blood Transfusion, • Radiofrequency Catheter Ablation. • AICD implantation
VII	16	<p>Respiratory System</p> <ul style="list-style-type: none"> □ Acid – base balance& imbalance □ Assessment: History and physical examination-Diagnostic tests:- Pulse oximetry, End –Tidal Carbon Dioxide Monitoring, ABG studies, Chest Radiography, Pulmonary Angiography, Bronchoscopy, 	4	<ul style="list-style-type: none"> • Airway Management • Ventilatory Management:- Invasive, non-invasive,

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Unit	Hrs	Content	Hrs	Practical
		<p>Pulmonary function test, Ventilation perfusion scan, Lung ventilation scan</p> <p>□ Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management: medical, surgical and nursing management of : -</p> <ul style="list-style-type: none"> • Common Pulmonary Disorders:- Pneumonia, Status asthmaticus, Interstitial lung Disease, Pleural effusion, Chronic obstructive pulmonary disease, Pulmonary edema, Atelectasis, Pulmonary embolism, Acute respiratory failure, ARDS, Chest Trauma Haemothorax, Pneumothorax <p>□ Management Modalities:</p> <ul style="list-style-type: none"> • Airway Management • Ventilatory Management:-Invasive, non- invasive, • Long term mechanical ventilations • Bronchial Hygiene: - Nebulization, deep breathing exercise, chest physiotherapy, Postural drainage, Inter costal drainage, Thoracic surgeries. 		<ul style="list-style-type: none"> • Nebulization, Deep breathing exercise, • Chest physiotherapy, • Postural drainage, • Inter costal drainage,
	12	<p>Burns</p> <p>□ Clinical types, classification, pathophysiology, clinical features, assessment, diagnosis, prognosis, management: medical, surgical and nursing management of burns.</p> <p>□ Fluid and electrolyte therapy- calculation of fluids and its administration</p> <p>□ Pain management</p> <p>□ Wound care</p> <p>□ Infection control</p> <p>□ Prevention and management of burns complications</p> <p>□ Grafts and flaps</p> <p>□ Reconstructive surgery</p> <p>□ Rehabilitation</p>	3	<ul style="list-style-type: none"> • Fluid and electrolyte therapy- calculation of fluids and its administration • Wound care •
VIII	8	<p>Neonatal Paediatric Nursing</p> <p>Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management: medical, surgical and nursing management of : -</p> <p>□ Neonatal emergencies</p> <p>□ Assessment of newborn, Low Birth Weight infant, Asphyxia Neonatarum, Pathophysiological Jaundice in neonates, Neonatal seizures, Metabolic disorders, Intra cranial Hemorrhage, Neonatal Sepsis, RDS/ HMD,</p>	2	<p>Assessment of newborn</p> <p>APGAR score</p> <p>Management of hypothermia, ventilator management</p>

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Unit	Hrs	Content	Hrs	Practical
		<input type="checkbox"/> Status asthmatics <input type="checkbox"/> Congenital disorders:-Cyanotic heart disease, Tracheoesophageal fistula, Congenital hypertrophic pyloric stenosis, Imperforate anus <input type="checkbox"/> Pediatric emergencies: Dehydration, Acute broncho pneumonia, ARDS, poisoning, Foreign bodies <input type="checkbox"/> Psychological issues of the child and family <input type="checkbox"/> Management modalities: Management of hypothermia, ventilator management		
IX	15	Obstetrical emergencies Causes, pathophysiology, clinical types, clinical features, diagnosis, prognosis, management: medical, surgical and nursing management of : - <input type="checkbox"/> Antepartum and Post partum hemorrhage <input type="checkbox"/> Preeclampsia, Eclampsia, <input type="checkbox"/> Obstructed labour and ruptured uterus, <input type="checkbox"/> Puerperal sepsis, Obstetrical shock.		

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Cardiothoracic Nursing

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12. Dr.C.S Waghale Principle's and Practice of clinical pediatrics, Vora Medical Publications, Mumbai.

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2. C.S.Dawn- Textbook of Gynecology Contraception and Demography.
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4. D.C Dutta. Textbook of Gynaecology, New Central book agency, Kolkata
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7. Ash Monga, Gynaecology by ten Teachers, Book power, London
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SCHEME OF EXAMINATION

Sr. No	Theory Exam	Marks allotted	Duration in hours
1	Internal Assessment	25	-
2	External Assessment	75	3
	Total	100	

INTERNAL ASSESSMENT**(25 MARKS)**

Sr. No	Item	Marks allotted	Weightage (%)	Marks out of 25
1.	First term Exam	50	20	5
2.	Pre-final Exam	75	30	7.5
3.	Assignments			
	a) Seminar	25	10	2.5
	b) Journal –(Interventions, diagnostic tests, Instruments, machines)	25	20	5.0
	c) ABG Album	25	10	2.5
4.	Attendance		10	2.5
	Total	200	100	25

Post Basic Diploma in Critical Care Nursing

SUPERVISION AND MANAGEMENT, CLINICAL TEACHING, ELEMETARY RESEARCH AND STATISTICS

Theory: 90 hours

Course Description –This course is designed to develop an understanding of 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 Critical care units and ICU.
3. Teach nurses and allied health workers about critical care nursing.
4. Describe research process and perform basic statistical tests.
5. Plan and conduct research in critical care nursing.

Section A: Supervision and Management

30 hrs

Unit	Hrs	Theory	Hrs	Practical
I	15	<p>Supervision and management</p> <ul style="list-style-type: none"> □ Management <ul style="list-style-type: none"> ▪ Definition ▪ Principles ▪ Elements of management of Critical care unit: – planning, organizing, staffing, reporting, recording and budgeting. ▪ ICU and critical care unit management – time, material and personnel. ▪ Layout and design of a ideal ICU ▪ Critically ill patients transport service- planning of transport, planning men & material for transportation (Mobile van set up), pre hospital care (trauma site, during transportation) □ Clinical supervision <ul style="list-style-type: none"> ▪ Introduction, definition and objectives of supervision ▪ Principles and functions of supervision ▪ Qualities of supervisors ▪ Responsibilities of clinical supervisors ▪ Practical standards of units. <ul style="list-style-type: none"> - Policies and procedures - Establishing standing orders and protocols ▪ Orientation programme for new recruits. □ Quality Assurance programme <ul style="list-style-type: none"> ▪ Nursing Audit ▪ ISO, NABH , JCI accreditation 	5	<p>Visit to mobile coronary care unit</p> <p>Preparation of</p> <ul style="list-style-type: none"> - SOPs - Performance appraisal tool

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Unit	Hrs	Theory	Hrs	Practical
		<input type="checkbox"/> Performance appraisal <ul style="list-style-type: none"> ▪ Principles of performance evaluation ▪ Tools of performance appraisal – rating scales, checklist, peer reviews, self appraisal <input type="checkbox"/> Staff development <ul style="list-style-type: none"> ▪ Introduction and purposes ▪ In-service education ▪ Continuing education 		
II	5	Professional trends <ul style="list-style-type: none"> <input type="checkbox"/> Introduction <input type="checkbox"/> Code of ethics, code of professional conduct and practice standards of Nursing in India. <input type="checkbox"/> Ethical issues in coronary care unit <input type="checkbox"/> Expanding role of the nurse: Specialist nurse, nurse practitioner etc. <input type="checkbox"/> Professional organizations. 		
III	5	Medico – Legal aspects <ul style="list-style-type: none"> <input type="checkbox"/> Legislations and regulations related to critical care <input type="checkbox"/> Consumer Protection Act (CPA) <input type="checkbox"/> Negligence and Malpractice <input type="checkbox"/> Legal responsibilities of nurses <ul style="list-style-type: none"> ▪ Bill of Right of a patient, euthanasia ▪ Case studies of Judgement with regard to negligence of services in the Hospital <input type="checkbox"/> Records and Reports <input type="checkbox"/> Role of the nurse in Legal issues <input type="checkbox"/> Professional practice issues in critical care units <input type="checkbox"/> Bioethical issues <ul style="list-style-type: none"> ▪ ethics, ethical principles, ▪ withholding and withdrawing treatment, ▪ ethical decision making. ▪ Code of professional conduct and practice standards. 		

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Section B: Clinical Teaching**30 hrs**

Unit	Hrs	Theory	Hrs	Practical
IV	20	Teaching Learning Process <ul style="list-style-type: none"> <input type="checkbox"/> Introduction and concepts <input type="checkbox"/> Principles of teaching and learning <input type="checkbox"/> Formulation of learning objective <input type="checkbox"/> Lesson planning <input type="checkbox"/> Teaching methods <ul style="list-style-type: none"> ▪ Lecture ▪ Demonstration, simulation ▪ Discussion ▪ Clinical teaching methods ▪ Microteaching ▪ Self learning <input type="checkbox"/> Evaluation- Assessment of students <ul style="list-style-type: none"> ▪ Purposes ▪ Types ▪ Steps ▪ Tools for assessing knowledge, skill and attitude <input type="checkbox"/> Use of media in teaching learning process 	10	Preparation of Lesson Plans Conducting clinical teachings (3) using various teaching methods.

Section C: Elementary research and statistics**30 hrs**

Unit	Hrs	Theory	Hrs	Practical
V	18	Research <ul style="list-style-type: none"> <input type="checkbox"/> Research and research process <input type="checkbox"/> Types of Research <input type="checkbox"/> Research problem /question <input type="checkbox"/> Review of Literature <input type="checkbox"/> Research approaches and designs <input type="checkbox"/> Sampling <input type="checkbox"/> Data collection: tools and techniques <input type="checkbox"/> Analysis and interpretation of data <input type="checkbox"/> Communication and utilization of Research <input type="checkbox"/> Research priorities in cardio thoracic 	2	Presentation of Research Proposal
	10	Statistics <ul style="list-style-type: none"> <input type="checkbox"/> Sources and presentation of data <ul style="list-style-type: none"> ▪ Qualitative and quantitative ▪ Tabulation, frequency distribution, percentiles ▪ Graphical presentation <input type="checkbox"/> Measures of central tendency: Mean, Median, Mode <input type="checkbox"/> Measures of Variance <input type="checkbox"/> Normal probability and tests of significance <input type="checkbox"/> Co-efficient of correlation <input type="checkbox"/> Statistical packages and its application <input type="checkbox"/> Preparing a research proposal <input type="checkbox"/> Application of Computers. 	3	Computer application – practicals <ul style="list-style-type: none"> • MS word • MS Excel • MS PPT

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5. Mahajan Methods in Bio statistics.
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SCHEME OF EXAMINATION

Sr. No	Theory Exam	Marks allotted	Duration in hours
1	Internal Assessment	25	-
2	External Assessment	75	3
	Total	100	

INTERNAL ASSESSMENT**(25 MARKS)**

Sr No	Item	Marks allotted	Weightage (%)	Marks out of 25
1.	First term Exam	50	20	5
2.	Pre-final Exam	75	30	7.5
3.	Assignments			
	a) Ward management report	25	10	2.5
	b) Clinical teaching (3)	150	10	2.5
	c) Research project	100	20	5.0
4.	Attendance		10	2.5
	Total	400	100	25

CLINICAL NURSING (TEACHING & SUPERVISION TO BE INTEGRATED)**HOURS DISTRIBUTION FOR CLINICAL EXPERIENCE**

Sr. No.	Units / Departments	No. of weeks	No. of Hrs
1.	Critical care units and wards (General)	8	272
2.	Cardio and respiratory (Medical)	6	204
3.	Critical Care units (Surgical)	6	204
4.	OTs (Cardiac, neuro, respiratory, renal, major abdominal surgeries)	4	136
5.	Casualty / Diagnostic labs	3	102
6.	Neuro trauma	4	136
7.	Renal	2	68
8.	Obstetrical and pediatric emergencies	2	68
9.	Burns and plastic surgery	3	102
	Total	38 weeks	
	Internship*	4 weeks	160

*Two weeks evening and two weeks night (40 hrs per week)

SCHEME OF EXAMINATION (Practical)

Sr. No	Theory Exam	Marks allotted
1	Internal Assessment	100
2	External Assessment	100
	Total	200

INTERNAL ASSESSMENT**(100 MARKS)**

Sr. No	Item	Marks allotted	Weightage (%)	Marks out of 100
1.	First term Exam	50	10	10
2.	Pre-final Exam	100	30	30
3.	Assignments			
	a) Clinical Evaluation (Medical, Surgical, Critical Units, OT)	400	10	10
	b) Case studies (5)	250	10	10
	c) Case Presentations (5)	250	10	10
	d) Observation report	50	5	10
	e) Nursing Care Plan	50	5	5
	f) Health Teaching (3)	75	10	5
4.	Attendance		10	10
	Total	1225	100	100

ESSENTIAL CRITICAL CARE NURSING SKILLS

I. Procedures to be observed

1. Echo cardiogram
2. Ultrasound
3. Monitoring ICP
4. CT Scan
5. MRI
6. Pet Scan
7. Angiography
8. Cardiac Catheterisation
9. Angioplasty
10. Various surgeries
11. Any other

II. Procedure to be Assisted

1. Monitoring ICP
2. Advanced life support system
3. Arterial blood gas
4. ECG recording
5. Arterial catheterization
6. Chest tube insertion
7. Endotracheal intubation
8. Ventilation
9. Central line, arterial line, cardiac pacing
10. Use of defibrillator, cardiopulmonary resuscitation
11. Endoscopy
12. Dialysis- Haemodialysis and peritoneal dialysis
13. Intra venous pyelography (IVP)
14. EEG
15. Bronchoscopy

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III. Procedures to be performed

1. Neurological assessment: Glasgow coma scale
2. Pulse oxymetry
3. Arterial BP monitoring
4. Venous access, ABG collection, monitoring
5. Oxygen administration, suctioning, respiratory therapy, tracheostomy toilet
6. Airway management
 - a) Application of Oro pharyngeal airway
 - b) Oxygen therapy
 - c) CPAP
 - d) Care of tracheostomy
 - e) Endotracheal intubation
7. Care of intercostals drainage
8. Nebulization
9. Chest physiotherapy
10. Monitoring of critically ill patients- clinically and with monitors, CRT (Capillary refill time), ECG
11. Gastric lavage
12. Setting of ventilators
13. Assessment of Neonates: identification & assessment of risk factors, APGAR
14. Admission and discharge of critically ill patients
15. OG (Orgastric) tube insertion
16. Thermoregulation- management of thermoregulation and control. Use of hypothermia machines
17. Administration of drugs: IM, IV injection, IV cannulation and fixation of infusion pump, cannulation of dosages, monitoring fluid therapy.
18. Administration of blood and its components
19. Procedures for prevention of infections: Hand washing, disinfection and sterilization, surveillance, fumigation
20. Collection of specimens related to critical care
21. Burns: assessment, calculation of fluid-crystalloids and colloid
22. Maintenance of intake and output chart
23. Wound dressing and prevention of contractures
24. Rehabilitations