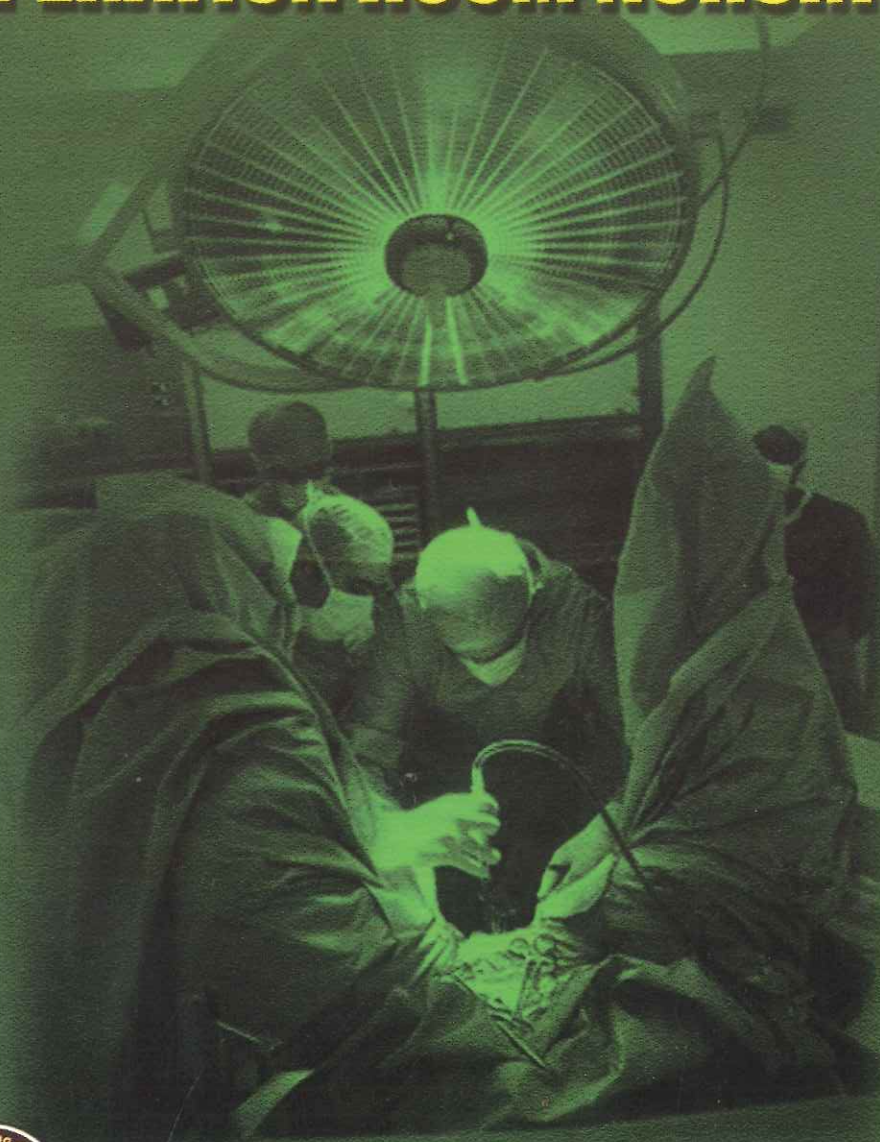


**SYLLABUS AND REGULATIONS**  
**POST BASIC DIPLOMA IN**  
**OPERATION ROOM NURSING**



**INDIAN NURSING COUNCIL**

COMBINED COUNCILS BUILDING, KOTLA ROAD  
TEMPLE LANE, NEW DELHI-110 002

# POST BASIC DIPLOMA IN OPERATION ROOM NURSING



Published by

**Indian Nursing Council**

Combined Council Building, Kotla Road, Temple Lane,  
New Delhi-110002

**First Edition 2007**

**Price : Rs. 100/-**

**Copyright © 2007 by Indian Nursing Council**

All rights reserved. No part of this publication may be reproduced, reviewed, abstracted, stored in a retrieval system or transmitted in any form or by any means including photocopying without the prior written permission of the Indian Nursing Council, New Delhi.

## PREFACE

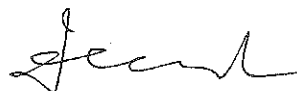
Nurses in Operation room provide care and support to patients before, during, and after surgery. These nurses are responsible for maintaining a sterile environment in the operating room, monitoring the patient during surgery, and coordinating care throughout the process. They are also responsible for making sure the OR team provides the patient with the best care possible.

The need for specialized operation room nursing education reflects the increasing complexity of operating room nursing knowledge, judgement and skills.

Operation room nurses may work in hospital surgical departments; day-surgery units (also called ambulatory surgery); clinics.

I am confident that the Operation Room nursing prepared by INC will be able to prepare the registered nurses as nurse specialists in providing competent care.

I take this opportunity to acknowledge the contribution of Mr. A.B Kulkarni and other expert nursing personnel in preparing this syllabus. I also acknowledge Ms. K.S. Bharati for designing and formatting the document.



T. Dileep Kumar  
President  
Indian Nursing Council  
and Nursing Adviser to  
Govt. to India

## CONTENTS

|    |  |    |
|----|--|----|
| 1. | Introduction   | 1  |
| 2. | Guidelines for Starting the Post Basic Diploma in OR Nursing                     | 2  |
| 3. | Organization of the Course   | 4  |
| 4. | Curriculum - Clinical Nursing - I  | 9  |
| 5. | Clinical Nursing - II  | 15 |
| 6. | Supervision & Management, Clinical Teaching,<br>Elementary Research & Statistics | 18 |
| 7. | Teaching Learning Activities   | 21 |
| 8. | Essential Critical Nursing Skills  | 23 |



# POST BASIC DIPLOMA IN OPERATION ROOM NURSING

## INTRODUCTION

The health needs are fast changing owing to the rapid change in the life style. It has significant impact on the development of diseases, its processes and treatment modalities. The advanced surgical procedures and technology has played a pivotal role in treatment modalities. This calls for specialized trained nurses in Operation theatre places the tremendous demand on the operation room nurses. Specially trained OR nurses play a key role in the effective functioning of OR surgical team.

The National Health Policy (NHP) 2002 emphasizes on the preventive, promotive, curative and rehabilitative aspects of the care. Since 1983 the NHP has guided the health care system in meeting the needs of the people to a great extent. The policy recognizes the need for establishing the training courses for the specialty nurses required for tertiary care institutions.

Post basic diploma in Operation Room Nursing is designed to prepare specially trained Operation Room Nurses. The outcome of the programme will be to have more nurses prepared as operation room nurses to work effectively as a member of the operation room surgical team.

## PHILOSOPHY

The Indian Nursing Council recognizes the need to prepare the specialized cadre of OR nurses with advanced knowledge, skills and attitude in providing comprehensive care to patients undergoing surgery.

Advances in surgical technology necessitate additional training to prepare them for effective participation as a health team member in operation room.

## PURPOSE

The purposes of the course are to train nurses to:

1. Provide quality care to patients in OR.
2. Manage & supervise care of patients in OR.
3. Teach nurses, allied health professionals and family members in areas related to OR nursing.
4. Conduct research in areas of OR nursing.

## COURSE DESCRIPTION

The course is designed to prepare registered nurses (GNM or B.Sc) with advanced knowledge, clinical skills and attitude necessary to function effectively as a member of OR surgical team (OR/peri operative nursing includes immediate pre intra and immediate post operative nursing)

## **GUIDELINES FOR STARTING THE POST BASIC DIPLOMA IN OR NURSING**

### **THE PROGRAMME MAY BE OFFERED AT**

- A) The Government (State/Center/Autonomous) nursing teaching institution offering diploma or degree programmes in nursing having parent/affiliated Government Hospital having facilities for General surgery, pediatric, cardio-thoracic, Gynae and Obstetrical, orthopaedics , ophthalmic, ENT and neuro surgery.

Or

- B) Other non-Govt. nursing teaching institution offering diploma or degree programmes in nursing having parent Hospital having facilities for General surgery, pediatric, cardio-thoracic, Gynae and Obstetrical, orthopaedics , ophthalmic, ENT and neuro surgery.

Or

- C) 250-500 bedded Hospital having facilities for General surgery, pediatric, cardio-thoracic, Gynae and Obstetrical, orthopaedics , ophthalmic, ENT and neuro surgery

### **RECOGNITION PROCEDURE**

1. Any institution which wishes to start post basic diploma in OR nursing should obtain the No Objection/Essentiality certificate from the State government. The institutions which are already recognized by INC for offering diploma/degree programmes in nursing are exempted for obtaining the No Objection/Essentiality certificate.
2. The Indian Nursing Council on receipt of the proposal from the Institution to start nursing program (School/College), will undertake the inspection to assess suitability with regard to physical infrastructure, clinical facility and teaching faculty in order to give permission to start the programme.
3. After the receipt of the permission to start the nursing programme from Indian Nursing Council, the institution shall obtain the approval from the State Nursing Council and Examination Board/University.

4. Institution will admit the students only after taking approval of State Nursing Council and Examination Board/University.
5. The Indian Nursing Council will conduct inspection for two consecutive years for continuation of the permission to conduct the programme.

#### **STAFFING**

1. Full time teaching faculty in the ratio of 1 : 5  
Minimum number of teaching faculty should be 2 (two)

##### Qualification :

1. M.Sc Nursing with Medical Surgical Specialty
2. Post basic diploma in Operation Room Nursing with basic B.Sc (N) or Post basic B.Sc(N)

##### Experience : Minimum 3 years

2. Guest faculty – multi-disciplinary in related specialties

#### **BUDGET**

There should be budgetary provision for staff salary, honorarium for part time teachers, clerical assistance, library and contingency expenditure for the programme in the overall budget of the institution.

#### **PHYSICAL FACILITIES**

1. Class room – 1
2. Nursing Laboratory –1
3. Library – Permission to use medical/hospital library having current nursing textbooks & journals in OR nursing, cardio-thoracic, medical surgical, neuro, renal, eye, ENT, Ortho, Gynae & obstetrics etc.
4. Teaching Aids - Facilities for the use of
  - Overhead projector
  - Slide Projector, Slides
  - TV with VCP or VCR, CD/DVD player, Video cassettes
  - LCD projector
  - Computer, CDs, DVD's



- Internet facility
  - Equipment for demonstration of skills (manikins, simulators, models, specimens, OT tables, surgical equipments etc).
5. Office facilities-
- Services of typist, peon, safai karamchari
  - Facilities for office, equipment and supplies:-
    - Stationary
    - Computer with printer
    - Xerox machine/Risograph
    - Telephone and fax

### 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 –
  - Maximum number of students = 25

### ORGANIZATION OF THE COURSE

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

B. **Distribution of the Course:**

|    |                                      |          |
|----|--------------------------------------|----------|
| 1. | Teaching: Theory & Clinical practice | 42 weeks |
| 2. | Internship                           | 4 weeks  |
| 3. | Examination (including preparation)  | 2 weeks  |
| 4. | Vacation                             | 2 weeks  |
| 5. | Public holidays                      | 2 weeks  |
|    |                                      | 52 weeks |

**C. 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 operation room nursing. Further more, this course will enable them to develop skills and attitude in providing competent operation room nursing care.

**Specific Objectives:**

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

1. Describe the concepts and principles of operation room nursing.
2. Communicate effectively with patients undergoing surgery and their family members.
3. Perform advance life support skills.
4. Apply nursing process in caring of patients undergoing surgery.
5. Participate effectively as a member of the health team.
6. Organize and demonstrate skills in management of operation room
7. Make a plan for organization of operation room.
8. Assist during surgical procedures and coordinate with the members of OR team.
9. Conduct research in operation room nursing.
10. Teach and supervise nurses and allied health workers.

#### D. Course of Studies :

|  | Theory                           | Practical            |
|--|----------------------------------|----------------------|
| 1. Clinical Nursing - I<br>(Inclusive of foundation courses)   | 155 Hours                        | Integrated           |
| 2. Clinical Nursing - II   | 155 Hours                        | Clinical<br>Practice |
| 3. Supervision & Management, Clinical<br>Teaching, Elementary Research &<br>Statistics<br>(i) Supervision & Management<br>(ii) Clinical Teaching<br>(iii) Elementary Research & Statistics | 30 Hours<br>30 Hours<br>30 Hours | 1280Hours            |
| 4. Internship  |                                  | 160 Hours            |
| <b>TOTAL</b>   | <b>400 Hours</b>                 | <b>1440 Hours</b>    |

- Hours distribution for theory and practice  $42 \text{ weeks} \times 40 \text{ hours/week} = 1680 \text{ hours}$
- Block classes  $4 \text{ weeks} \times 40 \text{ hours/week} = 160 \text{ hours}$
- Integrated theory & clinical practice  $38 \text{ weeks} \times 40 \text{ hours/week} = 1520 \text{ hours}$ 
  - (Theory 400 hrs)\* Theory 6 hours /week  $38 \text{ weeks} \times 6 \text{ hours/week} = 240 \text{ hours}$
  - Clinical experience 34 hours/weeks  $38 \text{ weeks} \times 34 \text{ hours/week} = 1280 \text{ hours}$
- Internship :  $4 \text{ weeks} \times 40 \text{ hours} = 160 \text{ hours}$

#### E. Clinical Experience

Areas of clinical experience required

Clinical experience must be provided as the stipulated clinical hours. The students should be posted in Operation rooms.

|                                     |   |          |
|-------------------------------------|---|----------|
| Gastro-intestinal,                  | - | 38 weeks |
| Nephro and uro surgery              | - | 4 weeks  |
| Neuro surgery                       | - | 4 weeks  |
| Cardiovascular and thoracic surgery | - | 4 weeks  |

|                       |   |         |
|-----------------------|---|---------|
| Ortho surgery         | - | 4 weeks |
| ENT                   | - | 2 weeks |
| Ophthalmic            | - | 2 weeks |
| Gynae and obstetrical | - | 4 weeks |
| Pediatric surgery     | - | 4 weeks |
| Burns and plastic     | - | 4 weeks |
| Dental surgery        | - | 2 weeks |

40 hrs. per week

Internship - 4 weeks

\* Two weeks evening and two weeks night

#### EXAMINATION SCHEME

|  | Int. Ass.<br>Marks | Ext. Ass.<br>Marks | Total<br>marks | Duration<br>(in hours) |
|--|--------------------|--------------------|----------------|------------------------|
| <b>A. Theory</b>   |                    |                    |                |                        |
| Paper I - Clinical Nursing I   | 50                 | 150                | 200            | 3                      |
| Paper II - Clinical Nursing II   | 50                 | 150                | 200            | 3                      |
| Paper III - Supervision &<br>Management, Clinical<br>Teaching, Elementary<br>Research & Statistics | 50                 | 150                | 200            | 3                      |
| <b>B. Practical</b>  |                    |                    |                |                        |
| Clinical Nursing (teaching &<br>supervision to be integrated)                                      | 100                | 100                | 200            |                        |
| <b>Grand Total</b>   | <b>250</b>         | <b>550</b>         | <b>800</b>     |                        |

#### C. Conditions for Admission to Examination

The Student:

1. Has attended not less than 75% of the theoretical instruction hours in each subject during the year.
2. Has done not less than 75% of the clinical practical hours. However, students

should make up 100% of attendance for integrated practice experience and internship in term 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 the 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 practical and papers.
- 2
  - a) Less than 60% is Second division,
  - b) 60 % and above and below 75% is First division,
  - c) 75 % and above is Distinction.
3. Students will be given opportunity of maximum of 3 attempts for passing.

### CERTIFICATION

- A. TITLE - Post Basic Diploma In **Operation room nursing**.
- B. A diploma is awarded upon successful completion of the prescribed study programme, which will state that
  - i) Candidate has completed the prescribed course of cardio-thoracic nursing.
  - ii) Candidate has completed prescribed clinical experience.
  - iii) Candidate has passed the prescribed examination.

## OPERATION ROOM NURSING-I

### Description:

This course is designed to help the students to review their knowledge of structure & functions of human body, pharmacodynamic of drugs acting on various systems of body & their relation with promotion of health, and application of principles of microbiology as applied to infection control practices in the operation room. Further it would enable students to acquire knowledge of anaesthesia and responsibilities of the OR nurse.

### Objectives:

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

1. Apply the knowledge of structure & functions of various system of human body relevant to surgical procedures.
2. Describe the pharmacodynamics of common drugs and anaesthetic agents used in OR.
3. Apply principles of microbiology in infection control practices in OR.
4. Describes the principles, types and methods of anaesthesia and nurse's responsibilities.
5. Apply principles of biophysics and chemistry in use of various gadgets.
6. Discuss ethical and legal responsibilities of OR nurse.

Time Allotted : 155 Hours

| UNIT   | HOURS | CONTENT   |
|--------|-------|---|
| Unit I | 20    | <b>ANATOMY &amp; PHYSIOLOGY</b><br>Review <ul style="list-style-type: none"><li>• Musculo skeletal System</li><li>• Body fluids &amp; electrolyte balance</li><li>• Respiratory system-Cardiovascular System</li><li>• Central Nervous System</li></ul> |



|         |    |  |
|---------|----|--|
|         |    | <ul style="list-style-type: none"> <li>• Special Senses Ear &amp; Hearing, Eye &amp; Vision</li> <li>Alimentary System</li> <li>• Metabolism &amp; Nutrition- Vitamins- Minerals</li> <li>Blood</li> <li>• Urinary System</li> <li>• Lymphatic System-Endocrine System</li> <li>• Reproductive system</li> <li>• Skin</li> </ul>   |
| Unit II | 45 | <p><b>SURGICAL ANATOMY</b></p> <p><b>GENERAL SURGERY</b></p> <ul style="list-style-type: none"> <li>• Abdominal Surgery-Anatomy of abdominal wall incisions, Hernia alimentary Canal, Gall bladder, bile duct, liver, spleen Pancreas, Surgery of Head &amp; Neck, Mouth and Breast, Thyroid gland.</li> </ul> <p><b>ORTHOPAEDICS</b></p> <ul style="list-style-type: none"> <li>• Bones and Joints</li> </ul> <p><b>UROLOGY</b></p> <ul style="list-style-type: none"> <li>• Kidney, ureters, Bladder, Prostate, Testes</li> </ul> <p><b>EAR, NOSE &amp; THROAT</b></p> <ul style="list-style-type: none"> <li>• Surgery of pharynx, Larynx, Nose &amp; Ear.</li> </ul> <p><b>GYNAEC &amp; OBST.</b></p> <ul style="list-style-type: none"> <li>• Pelvic viscera and other supports, Uterus, fallopion tubes, ovaries, cervix, vagina</li> </ul> <p><b>CARDIO THORACIC SURGERY</b></p> <ul style="list-style-type: none"> <li>• Chest wall, heart, blood vessels, trachea, bronchi, lungs,</li> </ul> <p><b>NEURO SURGERY</b></p> <ul style="list-style-type: none"> <li>• brain, spinalcord, peripheral &amp; sympathetic nerves,</li> </ul> <p><b>PAEDIATRIC SURGERY</b></p> <ul style="list-style-type: none"> <li>• Body systems</li> </ul> <p><b>OPHTHAMOLOGY</b></p> <ul style="list-style-type: none"> <li>• Eyes</li> </ul> |

|           |    |   |
|-----------|----|---|
| UNIT- III | 10 | BIO-<br>PHYSICS<br>CHEMISTRY<br>Review <ul style="list-style-type: none"> <li>• Units of measurements,</li> <li>• Gas laws,</li> <li>• Heat,</li> <li>• Electrostatics,</li> <li>• laser Rays used in O.R.,</li> <li>• Chemicals used in O.R.,</li> <li>• Occupational Hazards in O.R., Its prevention, control and management in emergency</li> <li>• Radio active materials-Operation tables-mechanics, positioning,</li> <li>• Principles underlying use of various gadgets</li> </ul> |
| Unit IV   | 10 | <input type="checkbox"/> Communication Skills & IPR <ul style="list-style-type: none"> <li>• Process &amp; methods</li> <li>• Establishing &amp; maintaining good IPR &amp; communication with family, staff and colleagues</li> <li>• Breaking of bad news- Multidisciplinary team &amp; role of nurses</li> </ul> <input type="checkbox"/> Guidance & Counseling  |
| Unit V    | 10 | <input type="checkbox"/> ANAESTHESIA <ul style="list-style-type: none"> <li>• Introduction</li> <li>• principles</li> <li>• Types</li> <li>• stages</li> </ul>  |

|          |    |   |
|----------|----|---|
|          |    | <ul style="list-style-type: none"> <li>• method of administration</li> <li>• anaesthetic machines and equipments</li> <li>• nurses role &amp; responsibilities.</li> </ul> <p>☐ <u>DRUGS USED IN ANESTHESIA ?</u></p> <ul style="list-style-type: none"> <li>• anaesthetic Agents used : Types</li> <li>• Methods of administration,</li> <li>• Action and effects-side effect</li> <li>• Antidotes</li> </ul> <p>Nurses responsibilities</p>   |
| Unit VI  | 10 | <p>LEGAL RESPONSIBILITIES</p> <ul style="list-style-type: none"> <li>• Identification of patients</li> <li>• Identification of right part to be operated</li> <li>• valid consent <ul style="list-style-type: none"> <li>o for operation</li> <li>o use of body tissue and organ transplant (donor and recipient)</li> </ul> </li> <li>• care of dentures,</li> <li>• counting of sponges, instruments etc</li> <li>• prevention of unusual incidences (fall of patient, burn, fire hazards)</li> </ul> <p>Records in operation theatre : Its medico - legal importance</p> |
| Unit VII | 35 | <p>Pharmacodynamics.</p> <ul style="list-style-type: none"> <li>• Drugs <ul style="list-style-type: none"> <li>o Antiseptics and disinfectants</li> <li>o Hypnotics, Barbiturates,</li> <li>o Tranquillizers and sedatives</li> <li>o Neuroleptic drugs,</li> </ul> </li> </ul>   |

|  |  |   |
|--|--|---|
|  |  | <ul style="list-style-type: none"> <li>o Phenothiazines,</li> <li>o Butobarbitone.</li> <li>o Anticonvulsants,</li> <li>o Analgesics,</li> <li>o Intraoperative Analgesia,</li> <li>o Nonsteriodal anti-inflammatory drugs</li> <li>o Narcotic antagonists,</li> <li>o Intravenous induction agents.</li> <li>o Isopyenatine</li> <li>o Bronchodilaters</li> <li>o Respiratory stimulants</li> <li>o Antidysarrhythmiacs</li> <li>o Vasopressor,</li> <li>o Vasodilator</li> <li>o antihypertensive agents</li> <li>o Ganglion blockers</li> <li>o Plasma expanders</li> <li>o Muscle relaxant</li> <li>o Beta blockers</li> <li>o Uterine stimulators</li> <li>o Uterine inhibitors</li> <li>o Insulin</li> <li>o Histamin and H1 &amp; H2 receptor antengonists,</li> <li>o Anticoagulants</li> <li>o Antiemetics</li> <li>o Anticholinergics</li> <li>o Drugs acting on eye , ENT and etc</li> </ul> <p>Nurses role and responsibilities</p> |
|--|--|---|

|           |    |   |
|-----------|----|---|
| UNIT VIII | 10 | <b>MICROBIOLOGY</b> <ul style="list-style-type: none"> <li>• Inflammation and Infection</li> <li>• Principles of asepsis,</li> <li>• Micro-organisms Classification</li> <li>• Sterilization &amp; disinfection-Principles, methods</li> <li>• Diagnostic tests in Microbiology &amp; related nurses' responsibility</li> <li>• Culture &amp; Growth</li> <li>• standard safety measures &amp; biomedical waste management</li> </ul> |
| Unit IX   | 5  | <b>Care of dying patients</b> <ul style="list-style-type: none"> <li>• Spiritual support to the dying</li> <li>• Grief and grieving process</li> <li>• Bereavement support</li> <li>• Organ donation &amp; Counselling</li> <li>• Care of déad</li> </ul>   |

## OPERATION ROOM NURSING-II

### COURSE DESCRIPTION :

This course is designed to prepare OR nurses with specialized knowledge and skills in assisting for various surgical procedures and practicing infection control measures.

### SPECIFIC OBJECTIVES:

On completion of this course the student will :

1. Demonstrate the skill in assisting different operative procedures.
2. Apply nursing process in pre-operative, operative and post-operative stages.
3. Demonstrate skill in organization of tasks, time, motion, equipment, supplies, materials and resources
4. Demonstrate knowledge and principles of sterilization and disinfection
5. Participate with other surgical team members,

Time Allotted : 155 Hours

| UNIT | HOURS | CONTENT   |
|------|-------|---|
| I    | 10    | O.R. TABLE AND ORGANIZATION <ul style="list-style-type: none"><li>• Equipments and amenities</li><li>• Different types of tables and accessories</li><li>• Organization of table and equipments</li></ul> nurses' role and responsibilities.  |
| II   | 15    | Infection control <ul style="list-style-type: none"><li>• Environment : - Cleaning, disinfecting O.R. Area, equipments, Air conditioning system,</li><li>• Aseptic techniques - Handwashing, use of mask, gowning, gloving, head cover</li><li>• Sterilization: - Preparing and packing of instruments, dressing materials, linen, suture</li></ul> |



|     |    |   |
|-----|----|---|
|     |    | <p>materials , drainage tubes and catheters, care of electro-medical equipments</p> <ul style="list-style-type: none"> <li>- Handling and storing of sterilized material, equipments, instruments.</li> <li>• Collection of various specimens for laboratory tests</li> <li>• Bio-Medical Waste Management: - Universal standards and it's application in O.R.Nursing.</li> <li>- Nurses Role and Responsibility</li> </ul>   |
| III | 70 | <p>Preparation and assisting for various surgical procedures; as circulating and scrub nurse</p> <ul style="list-style-type: none"> <li>• Setting up of operation room and table</li> <li>• setting up of trays and trolleys for various surgical procedures</li> <li>• Part preparation for surgical procedures</li> <li>• positioning and drapping according to the surgical procedures</li> <li>• incisions for various surgical procedures</li> <li>• Minor surgeries-surgical instruments and suturing materials</li> <li>• Major surgeries - surgical instruments and suturing materials : <ul style="list-style-type: none"> <li>o General, Gynaeco</li> <li>o Obstetrics,</li> <li>o Orhopaedics,</li> <li>o Plastic and Reconstructive surgery,</li> <li>o Ophthalmic,</li> <li>o Head and Neck,</li> <li>o ENT,</li> <li>o Cardio-Thoracic,</li> <li>o Neuro,</li> <li>o Paediatric</li> <li>o Dental.</li> </ul> </li> <li>• Laser and robotic surgery</li> <li>• Records and reports</li> </ul> <p>Nurses role and responsibilities</p> |

|      |    |   |
|------|----|---|
| IV   | 5  | <p>Operating microscopes</p> <ul style="list-style-type: none"> <li>• Types</li> <li>• Accessories</li> <li>• attachments,</li> <li>• uses</li> <li>• disinfection.</li> <li>• Maintenance and storage.</li> <li>• Nurses role and responsibility</li> </ul>  |
| V    | 5  | <p>SUTURE MATERIAL &amp; NEEDLES</p> <ul style="list-style-type: none"> <li>• Types,</li> <li>• uses,</li> <li>• disinfection</li> <li>• storage</li> </ul>   |
| VI   | 10 | <p>ENDOSCOPIES</p> <ul style="list-style-type: none"> <li>• Definition,</li> <li>• Types</li> <li>• Uses</li> <li>• Maintenance and storage</li> <li>• Preperation of patients</li> <li>• Nurses role and responsibilities</li> </ul>   |
| VII  | 5  | <p>Bandages, splints, casts and traction</p> <ul style="list-style-type: none"> <li>• Types</li> <li>• Uses</li> <li>• Preparation</li> <li>• Maintenance and storage</li> </ul>  |
| VIII | 25 | <p>RECOVERY ROOM /SURGICAL INTENSIVE CARE UNIT</p> <ul style="list-style-type: none"> <li>• Set up and organisation</li> <li>• Management of patient</li> <li>• Reporting and recording</li> <li>• Transportation of patient Nurses role and responsibility</li> </ul>  |
| IX   | 10 | <p>FLUID THERAPY</p> <ul style="list-style-type: none"> <li>• Fluid and electrolytes</li> <li>• blood and blood components</li> <li>• plasma and plasma</li> <li>• Allergies and reactions</li> <li>• high risk patients</li> <li>• management of anaphylactic shock</li> <li>• Records and reports</li> <li>• Nurses role and responsibility)</li> </ul> |

## Supervision & Management, Clinical Teaching, Elementary Research & Statistics

Total Hours: 90

|  |          |
|--|----------|
| Section-A Supervision & Management         | - 30 HRS |
| Section-B Clinical Teaching                | - 30 HRS |
| Section-C 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 operation room.
3. Teach nurses and allied health workers in Operation room.
4. Describe research process and perform basic statistical tests.
5. Plan and conduct research in operation room nursing

| Unit   | Hours | Subject  |
|--------|-------|--|
| UNIT I | 20    | <u>SUPERVISION &amp; MANAGEMENT</u><br><input type="checkbox"/> Management <ul style="list-style-type: none"> <li>• Definition &amp; Principles</li> <li>• Elements of management of Operation room : -<br/>Planning, Organizing, Staffing, Reporting, Recording and Budgeting</li> <li>• Operation room : - Time, material &amp; personnel</li> </ul> PHYSICAL LAY OUT OF O.R.<br>Design of OR, size, shape, colour, ventilation with |

|         |   |  |
|---------|---|--|
|         |   | <p>Air Conditioning, lighting, ultra clean air system, traffic flow pattern, zones of risk, sign of various facilities</p> <ul style="list-style-type: none"> <li>❑ Clinical supervision <ul style="list-style-type: none"> <li>• Introduction, definition and objectives of supervision</li> <li>• Principles &amp; Functions of supervision</li> <li>• Qualities of supervisors</li> <li>• Responsibilities of clinical supervisors</li> <li>• Practice Standards of operation room nurse <ul style="list-style-type: none"> <li>- Policies and Procedures</li> <li>- Establishing Standing orders and Protocols</li> </ul> </li> <li>• Orientation programme for new recruits</li> </ul> </li> <li>❑ Quality Assurance Programme in operation room nurse <ul style="list-style-type: none"> <li>• Nursing audit</li> </ul> </li> <li>❑ Performance Appraisal <ul style="list-style-type: none"> <li>• Principles of performance evaluation</li> <li>• Tools of performance appraisal <ul style="list-style-type: none"> <li>- Rating scales</li> <li>- Checklists</li> <li>- Peer reviews</li> <li>- Self appraisals</li> </ul> </li> </ul> </li> <li>❑ Staff development <ul style="list-style-type: none"> <li>• Introduction &amp; purposes</li> <li>• In-service education</li> <li>• Continuing education</li> </ul> </li> </ul> |
| UNIT II | 5 | <ul style="list-style-type: none"> <li>❑ Professional trends <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Code of Ethics, code of professional conduct and practice standards of Nursing in India</li> <li>• Ethical issues in critical care unit</li> <li>• Expanding role of the nurse : Specialist nurse, Nurse Practitioner etc.</li> <li>• Professional organizations</li> </ul> </li> </ul>  |

|          |    |  |
|----------|----|--|
| UNIT III | 5  | <input type="checkbox"/> <u>Medico-Legal aspects</u> <ul style="list-style-type: none"> <li>• Legislations and regulations related to critical care.</li> <li>• Consumer Protection Act (CPA)</li> <li>• Negligence &amp; Malpractice</li> <li>• Legal responsibilities of nurses <ul style="list-style-type: none"> <li>- Bill of right of a patient, Case studies of judgment with regard to negligence of services in the Hospital</li> </ul> </li> <li>• Records and Reports</li> <li>• Role of the nurse in Legal issues</li> <li>• Professional practice issues in the operation room <ul style="list-style-type: none"> <li>- Bioethical Issues in operation room : - Ethics, Ethical principles, Ethical decision making in operation room</li> </ul> </li> </ul>  |
| UNIT IV  | 30 | <input type="checkbox"/> <u>Teaching learning process</u> <ul style="list-style-type: none"> <li>• Introduction and concepts</li> <li>• Principles of teaching and learning</li> <li>• Formulation of learning objectives</li> <li>• Lesson Planning</li> <li>• Teaching methods <ul style="list-style-type: none"> <li>- Lecture</li> <li>- Demonstration, Simulation</li> <li>- Discussion</li> <li>- Clinical teaching methods</li> <li>- Micro teaching</li> <li>- Self learning</li> </ul> </li> </ul> <input type="checkbox"/> <u>Evaluation</u> <ul style="list-style-type: none"> <li>- Assessment of Students <ul style="list-style-type: none"> <li>o Purposes</li> <li>o Type</li> <li>o Steps</li> <li>o Tools for assessing knowledge, skill and attitude</li> </ul> </li> <li>• Use of media in teaching learning process</li> </ul> |

|        |    |  |
|--------|----|--|
| UNIT V | 30 | <input type="checkbox"/> Research <ul style="list-style-type: none"> <li>• Research and research process</li> <li>• Types of Research</li> <li>• Research Problem/Question</li> <li>• Review of Literature</li> <li>• Research approaches and designs</li> <li>• Sampling</li> <li>• Data collection : Tools and techniques</li> <li>• Analysis and interpretation of data :</li> <li>• Communication and utilization of Research</li> <li>• Research priorities in critical care</li> </ul> <input type="checkbox"/> Statistics <ul style="list-style-type: none"> <li>• Sources and presentation of Data <ul style="list-style-type: none"> <li>- qualitative and quantitative</li> <li>- Tabulation; frequency distribution, percentiles</li> <li>- Graphical presentation</li> </ul> </li> <li>• Measures of central tendency – mean; median, mode</li> <li>• Measures of variance</li> <li>• Normal Probability and tests of significance</li> <li>• Co-efficient of correlation.</li> <li>• Statistical packages and its application</li> <li>• Preparing a research proposal</li> </ul> <input type="checkbox"/> Application of computers |
|--------|----|--|

### Teaching Learning Activities

(i) **Methods of Teaching:**

- √ Lecture
- √ Demonstration & Discussion
- √ Supervised practice
- √ Seminar
- √ Workshop
- √ Conference



- √ Skill training
- √ Simulations
- √ Visits to related departments
- √ Research project

**(ii) A.V Aids:**

- √ Over head projector
- √ Slide Projector
- √ Black board
- √ Graphic Aids
- √ Programmed – Video shows
- √ Models & Specimens
- √ LCD projector
- √ Computer

**METHODS OF ASSESSMENT:**

- √ Written examination
- √ Objective type
- √ Short notes
- √ Assignments
- √ Case studies/care notes
- √ Clinical presentation
- √ Seminars
- √ Project

**ESSENTIAL CLINICAL/PRACTICAL ACTIVITIES**

- Patient Care Assignments
- Writing of Nursing care plan for assigned post operative patients.

|   |   |   |    |
|---|---|---|----|
| - | Work as scrub nurse   | - | 10 |
| - | Work as circulatory nurse   | - | 10 |
| - | Writing case studies  | - | 5  |
| - | Case presentations  | - | 5  |
| - | Writing Observation report  |   |    |
| - | Planned health teaching   | - | 3  |
| - | Project   | - | 1  |
| - | Drug study  | - | 2  |
| - | Prepare clinical rotation plan  |   |    |
| - | Prepare clinical teaching plan for students   |   |    |
| - | Perform clinical evaluation of students/staff   |   |    |
| - | OR management plan- Designing   |   |    |
| - | Supervision techniques- Writing unit report, Performance appraisal, Guidance, Staff assignment, Material management |   |    |
| - | Maintenance of Records and Reports.   |   |    |

### Essential critical care nursing skills

#### I. Procedures Observed:

- i. Surgical interventions in all the minor and major OTs

#### II. Procedures Assisted:

- i. Monitoring ICP
- ii. Advanced life support system
- iii. Arterial Blood Gas
- iv. ECG Recording
- v. Arterial catheterization
- vi. Chest tube insertion

- vii. Endotracheal intubation
- viii. Ventilation
- ix. Central line, Arterial line, Cardiac pacing
- x. Use of defibrillator, Cardiopulmonary resuscitation
- xi. Endoscopy
- xii. Dialysis-Hemodialysis and peritoneal dialysis
- xiii. Intra venous pyelography (IVP)
- xiv. EEG
- xv. Bronchoscopy

### III. Procedures Performed:

- Work as a scrub nurse
- Work as a circulatory nurse
- Setting up of trays and trolleys of all surgical procedures
- Skin preparation
- Draping and positioning
- Transferring of the patient
- Use of operating room care plan
- Specific teaching related to patient's surgery
- Adequate instrumentation
- Use special supplies and/or equip
- Dressing of all wounds
- Sterilization and asepsis
- Microbiology and environment
- Preparation of supplies and instruments
- working knowledge of disposable packs,
- Disposable gowns, proper handling of paper wrappers

- i. Neurological assessment; Glasgow coma scale
- ii. Pulse oxymetry
- iii. Arterial B P monitoring
- iv. Venous access, ABG collection monitoring
- v. Oxygen administration, Suctioning, Respiratory therapy, Tracheotomy toilet
- vi. Airway Management
  - a) Application of Oro Pharyngeal Airway
  - b) Oxygen therapy
  - c) CPAP (Continuous Positive Airway Pressure)
  - d) Care of Tracheostomy
  - e) Endotracheal Intubation
- vii. Care of intercostals drainage
- viii. Nebulisation
- ix. Chest physiotherapy
- x. Monitoring of critically ill patients – clinically & with monitors, CRT (Capillary Refill Time), ECG
- xi. Gastric Lavage
- xii. Setting of Ventilators
- xiii. Assessment of Neonates: Identification & assessment of risk factors, APGAR Score
- xiv. Admission & discharge of critically ill patients
- xv. OG (Orogastric) tube insertion
- xvi. Thermoregulation- management of thermoregulation & control, Use of hypothermia machines
- xvii. Administration of Drugs: I/M, IV injection, IV Cannulation & fixation infusion pump, Calculation of dosages, Monitoring fluid therapy.
- xviii. Administration of Blood and its components.

- xix. Procedures for prevention of infections: Hand washing, disinfections & sterilization, surveillance, fumigation
- xx. Collection of specimens related to critical care.
- xxi. Burns: assessment, calculation of fluid-crystalloid and colloid
- xxii. Maintenance of intake and output chart.
- xxiii. Wound dressing and prevention of contractures
- xxiv. Rehabilitation

**IV. Other Procedures :**