

**CURRICULUM**

**OF**

**POST BASIC DIPLOMA IN**

**OPERATION ROOM NURSING**

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Prepared in March 2015

### **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 Operation Room Nursing in clinical settings in order to provide comprehensive care to patients undergoing surgery.
- registered nurses need to be prepared as per the expanding roles of nurses and advances in technology for effective participation in as a health team member in operation room.

### **PURPOSE:**

The purpose of the course is to train nurses to:

1. Provide quality care to patients in Operation Room.
2. Manage and supervise care of patients in Operation Room
3. Teach nurses, allied health professionals and family members in areas related to Operation Room.
4. Conduct research in areas of Operation Room 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 / Perioperative Nursing includes immediate pre intra and immediate post operative 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 operation room nursing. Furthermore, 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 having 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 operation room nursing.
10. 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
  - Maximum number of seats =25

Post Basic Diploma in Operation Room Nursing

**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

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52 weeks

**COURSE OF INSTRUCTIONS**

Sl. No.	Subject	Theory (in hrs)	Practical (in hrs )
1.	Clinical Nursing – I ( Inclusive of Foundation Courses)	155	1280 ( Integrated clinical practice)
2.	Clinical 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
	<b>Total hours</b>	<b>400</b>	<b>1440</b>
	<b>Total hours = 1840 hrs</b>		

**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 & 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**

<b>Subject</b>	<b>Duration Hours</b>	<b>Internal assessment marks</b>	<b>External examination marks</b>	<b>Total marks</b>
<b>A. Theory</b>				
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>B. Practical</b>				
Clinical Nursing ( teaching & supervision to be Integrated)		100	100	200
<b>Grand Total</b>		<b>175</b>	<b>325</b>	<b>500</b>

### **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 to be conducted by the State Nursing Registration Council / State Nursing Examination Board/ **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 **Operation Room 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 cardio- thoracic nursing.
  - b. Candidate has completed prescribed clinical experience.
  - c. Candidate has passed the prescribed examination.

**OPERATION ROOM NURSING –I****Theory: 155 hours**

**Course Description** –This course is designed to help the students to review their knowledge of structure and function of human body, pharmacodynamics of drugs acting on various systems of body and their relation with promotion of health and application of principles of microbiology as applied to infection control practices in the operation room.

**Objectives:** This course will help the students to:

- 1) Apply the knowledge of structure and function of various system of human body relevant to surgical procedures.
- 2) Describe the pharmacodynamics of common drugs and anesthetic agents used in OR.
- 3) Apply principles of microbiology in infection control practices in OR.
- 4) Describes the principles, types and methods of anesthesia and nurses responsibilities.
- 5) Apply principles of biophysics and chemistry in use of various gadgets.
- 6) Discuss ethical and legal responsibilities of OR nurse.

Unit	Hrs	Theory	Hrs	Practical
<b>I</b>	<b>20</b>	<b>ANATOMY AND PHYSIOLOGY</b> Review <ul style="list-style-type: none"> <li><input type="checkbox"/> Musculo skeletal system</li> <li><input type="checkbox"/> Body fluids &amp; electrolyte balance</li> <li><input type="checkbox"/> Respiratory system</li> <li><input type="checkbox"/> Cardiovascular system</li> <li><input type="checkbox"/> Central Nervous system</li> <li><input type="checkbox"/> Special senses Ear &amp; Hearing, Eye &amp; Vision Elementary system</li> <li><input type="checkbox"/> Metabolism &amp; Nutrition – Vitamins – Minerals Blood</li> <li><input type="checkbox"/> Urinary System</li> <li><input type="checkbox"/> Skin</li> </ul>		
<b>II</b>	<b>45</b>	<b>SURGICAL ANATOMY</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> GENERAL SURGERY: Abdominal Surgery- Anatomy of abdominal wall incisions, hernia alimentary canal, gall bladder, bile duct, liver, spleen, pancreas, surgery of head and neck mouth and breast, thyroid gland</li> <li><input type="checkbox"/> ORTHOPEDICS: Bones and joints</li> <li><input type="checkbox"/> UROLOGY: Kidney, ureters, Bladder, prostate, testes</li> <li><input type="checkbox"/> EAR, NOSE AND THROAT: Surgery of pharynx larynx nose and ear</li> <li><input type="checkbox"/> GYNAEC AND OBST.: Pelvic viscera &amp; other supports</li> </ul>		

## Post Basic Diploma in Operation Room Nursing

Unit	Hrs	Theory	Hrs	Practical
		<input type="checkbox"/> Uterus, fallopian tubes, ovaries, cervix, vagina <input type="checkbox"/> CARDIOTHORACIC SURGERY: Chest wall, heart, blood vessels, trachea, bronchi, lungs <input type="checkbox"/> NEURO SURGERY: Brain, spinal cord, peripheral & sympathetic nerves <input type="checkbox"/> PAEDIATRIC SURGERY: Body systems <input type="checkbox"/> OPHTHALMOLOGY: Eyes		
<b>III</b>	<b>8</b>	<b>BIO-PHYSICS CHEMISTRY</b> Review <input type="checkbox"/> Units of measurement <input type="checkbox"/> Gas laws <input type="checkbox"/> Heat <input type="checkbox"/> Electrostatics <input type="checkbox"/> Laser rays used in O.R <input type="checkbox"/> Chemicals used in O.R <input type="checkbox"/> Occupational hazards in O.R., Its prevention, control and management in emergency <input type="checkbox"/> Radioactive materials, operation tables mechanics , positioning <input type="checkbox"/> Principles underlying use of various gadgets	2	Operation table mechanics
<b>IV</b>	<b>10</b>	<b>COMMUNICATION SKILLS &amp; IPR</b> <input type="checkbox"/> Process and methods <input type="checkbox"/> Establishing and maintaining good IPR & communication with family, staff and colleagues <input type="checkbox"/> Breaking of bad news , multidisciplinary team and role of nurses <input type="checkbox"/> Guidance & Counseling		
<b>V</b>	<b>8</b>	<b>ANAESTHESIA</b> <input type="checkbox"/> Introduction <input type="checkbox"/> Principles, <input type="checkbox"/> Types, Stages <input type="checkbox"/> Method of administration <input type="checkbox"/> Anaesthetic machines and equipments <input type="checkbox"/> Nurses role and responsibilities <input type="checkbox"/> Drugs used in anaesthesia <input type="checkbox"/> Anaesthetic agents used: types <input type="checkbox"/> Methods of administration <input type="checkbox"/> Actions and effects, side effects, Antidotes <input type="checkbox"/> Nurses responsibilities	2	Anaesthesia Machine



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Unit	Hrs	Theory	Hrs	Practical
VI	10	<b>LEGAL RESPONSIBILITIES</b> <ul style="list-style-type: none"> <li>• Identification of patients</li> <li>• Identification of right part to be operated</li> <li>• Valid consent – for patient               <ul style="list-style-type: none"> <li>- use of body tissue and organ transplant</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> <li>• Records in operation theatre – Its medico –legal importance</li> </ul>		
VII	30	<b>PHARMACOLOGY</b> Review <ul style="list-style-type: none"> <li><input type="checkbox"/> Pharmacokinetics</li> <li><input type="checkbox"/> Drug reactions and toxicity</li> <li><input type="checkbox"/> Principles of drug administration , role of nurses               <ul style="list-style-type: none"> <li>• Antiseptics and disinfectants</li> <li>• Hypnotics and Barbiturates</li> <li>• Tranquillizers and sedatives</li> <li>• Neuroleptic drugs</li> <li>• Phenothiazines</li> <li>• Butobarbitone</li> <li>• Anticonvulsants</li> <li>• Analgesics</li> <li>• Intraoperative analgesia</li> <li>• Nonsteroidal anti-inflammatory drugs</li> <li>• Narcotic antagonists</li> <li>• Intravenous induction agents</li> <li>• Isopynatime</li> <li>• Bronchodilators</li> <li>• Respiratory stimulants</li> <li>• Antidysarrythmics</li> <li>• Vasopressor</li> <li>• Vasodilators</li> <li>• Antihypertensive drugs</li> <li>• Ganglion blockers</li> <li>• Plasma Expanders</li> <li>• Muscle relaxant</li> <li>• Beta blockers</li> <li>• Uterine stimulators, Uterine inhibitors</li> <li>• Insulin</li> </ul> </li> </ul>	5	Drug calculation  Operating <ul style="list-style-type: none"> <li>▪ syringe pump</li> <li>▪ infusion pump</li> <li>▪ meter dose inhaler</li> </ul>

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Unit	Hrs	Theory	Hrs	Practical
		<ul style="list-style-type: none"> <li>Histamine and H1 and H2 receptor antagonists</li> <li>Anticoagulants</li> <li>Anticholinergics</li> <li>Drugs acting on eye, ENT etc.</li> </ul>		
VIII	6	<b>MICROBIOLOGY</b> <ul style="list-style-type: none"> <li>Inflammation and Infection</li> <li>Principles of asepsis</li> <li>Classification of Microorganisms</li> <li>Principles and methods of Sterilization and Infection</li> <li>Diagnostic tests in microbiology and related nurses responsibility</li> <li>Culture and Growth</li> <li>Standard safety measures and Biomedical waste management</li> </ul>	4	Visit to CSSD
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 and counseling</li> <li>Care of dead</li> </ul>		

**BIBLIOGRAPHY****A. Microbiology**

- Bernard D. Davis, Rentap Dalbecco Herman N. Eisen & Harold S. Ginsberg, “Microbiology”, 3rd ed, A Harper International edition.
- Hug L. L Moffet, (1981) “Clinical microbiology”, 2nd ed., J. B. Lippincott Co.
- Macbie and Mecartney, (1980), “Medical microbiology” 13th ed., Printed.
- P. Ananthanarayan and C. K. Jayarm Panikar, “Textbook of microbiology”, 8th ed., Orient Longman Company Ltd.

**B. Anatomy and Physiology**

- Waugh, Anne (2003), “ Ross & Wilson’s Anatomy & Physiology in health & illness” 10th ed., Churchill Livingstone.
- Tortora, (2003), “Principles of Anatomy & Physiology,” 10th ed., Wiley inter.
- Chaurasia, B.D. (2004), “Human Anatomy”, 4th ed., CBS publishers.
- Sembulingam, “Essentials of Medical Physiology,” 3rd Edition 2004 J.P. Publications.
- Guyton and Hall, “Textbook of Medical Physiology,” 9th Edition, A Prism2. Indian Edn. Pvt.Ltd.

**C. Pharmacology**

1. Satoskar, Bhandarkar, Ainapure: Pharmacology and pharmacotherapeutics, 18 Edition Popular Prakashan Mumbai.2007.
2. K D Tripathi: Essentials of medical pharmacology, 4 Edition, Jaypee Brothers, Bangalore.2009.
3. Chatterjee K, Topol E.J. Cardiac Drugs Paperback – 2013, Jaypee Publisher
4. Lippincott Williams and Wilkins (2008), Nurses Drug Guide

**D. Diagnostic tests**

1. Chatterjee K,Manual of Cardiac Diagnosis Paperback – 2014
2. Williamson M.A, Snyder L.M. Wallach's Interpretation of Diagnostic Tests: Pathways to Arriving at a Clinical Diagnosis (Interpretation of Diagnostic Tests)- 2014
3. Pagana K.D, Pagana T.J. Mosby's Manual of Diagnostic and Laboratory Tests, 5<sup>th</sup> edition.
4. Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests With Nursing Implications

**E. Emergency Nursing**

1. Mary Lou Sole et.al, ‘ ‘Introduction to critical care nursing’’, 4<sup>th</sup> edition, Elsevier Saunders publications.
2. Linda D Urdan et.al, ‘ ‘Thelans Critical Care Nursing diagnosis and management’’, 4<sup>th</sup> edition, Mosby publications.
3. Suddharth and Brunner (2002) Text book of Medical Surgical Nursing, 10<sup>th</sup> edition
4. Black J.M. Joyce
5. Phipps W.J., Long C.B. & Wood N.F (2001), Shaffers medical surgical nursing, B.T. Publication Pvt.Ltd. New Delhi

**F. Communication, Nursing Process, Care of Dying patient**

1. The Lippincott Manuel of Nursing Practice (2005), 7<sup>th</sup> edition, Nettina, Sandra, Lippincott Williams and Wilkins, Philadelphia.
2. Potter A.P., Perry A.G,( 2005), Fundamentals of Nursing, 6th edition; C.V.Mosby company.
3. Kozier B et al, (2004), Fundamentals of Nursing concepts, process and practice, Pearson education , Inc 2nd Indian Print.
4. Brunnerr and Suddarth Test book of Medical surgical nursing 10th edition 2002
5. Carol Taylor Fundamental of Nursing, Carol Lillis et al Lippincot, 5thedition 2005.
6. Wilkinson,J. M.&Leuven, K.V . (2008). Fundamental of Nursing, Theory Concepts and Applications. (1<sup>st</sup> Ed) . Davis Company: Philadelphia.

**SCHEME OF EXAMINATION**

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

**INTERNAL ASSESSMENT****(25 MARKS)**

<b>Sr No</b>	<b>Item</b>	<b>Marks allotted</b>	<b>Weightage (%)</b>	<b>Marks out of 25</b>
1.	First term Exam	50	20	5.0
2.	Pre-final Exam	75	30	7.5
3.	Assignments			
	a) Seminar	25	10	2.5
	b) Journal- instruments, machines, Application of biophysics in OR	25	20	5.0
	c) Drug book	25	10	2.5
4.	Attendance		10	2.5
	<b>Total</b>	<b>200</b>	<b>100</b>	<b>25</b>

## Post Basic Diploma in Operation Room Nursing

**OPERATION ROOM NURSING –II****Theory: 155 hours**

**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.

**Objectives:** On completion of this course the student will:

- 1) Demonstrate the skill in assisting different operative procedures.
- 2) Apply nursing process in preoperative, 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 member

Unit	Hrs	Theory	Hrs	Practical
I	10	<b>O.R TABLE AND ORGANIZATION</b> <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, Nurses role and responsibilities</li> </ul>		
II	12	<b>INFECTION CONTROL</b> <ul style="list-style-type: none"> <li>• Environment :- Cleaning, disinfecting O.R, Area, equipments, air conditioning system</li> <li>• Aseptic Techniques – hand washing, use of mask, gowning, gloving, head cover</li> <li>• Sterilization – preparing and packing of instruments, dressing materials, linen, suture materials, drainage tubes, and catheters, care of electro medical equipments, 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 its application in O.R. Nursing.</li> <li>• Nurses role and responsibility</li> </ul>	3	<ul style="list-style-type: none"> <li>• Hand Washing Techniques</li> <li>• Practice standard safety precaution</li> </ul>
III	60	<b>PREPARATION AND ASSISTING FOR VARIOUS SURGICAL PROCEDURE; AS CIRCULATING AND SCRUB NURSE</b> <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> </ul>	10	-Setting up of trays and trolleys -Skin Preparation -Draping and positioning -Preparation of pre operative and

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Unit	Hrs	Theory	Hrs	Practical
		<ul style="list-style-type: none"> <li>Positioning and draping 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</li> <li>General, gynaecology</li> <li>Obstetrics</li> <li>Orthopedics</li> <li>Plastic and Reconstructive Surgeries</li> <li>Ophthalmic</li> <li>Head and Neck</li> <li>ENT</li> <li>Cardio-Thoracic</li> <li>Neuro,</li> <li>Paediatric</li> <li>Dental</li> <li>Laser and robotic surgery</li> <li>Records and reports</li> </ul> Nurses role and responsibilities		post operative unit  -Dressing of all wounds  -Scrubbing, gowning, gloving
IV	5	<b>OPERATING MICROSCOPES</b> <ul style="list-style-type: none"> <li>Types, Accessories, Attachments, Uses</li> <li>Disinfection, Maintenance and storage</li> <li>Nurses role and responsibilities</li> </ul>		
V	4	<b>SUTURE MATERIAL AND NEEDLES</b> Types, Uses, Disinfection and Storage	1	Identify instruments, suture materials for operations
VI	10	<b>ENDOSCOPIES</b> <ul style="list-style-type: none"> <li>Definition</li> <li>Types</li> <li>Uses</li> <li>Maintenance and storage</li> <li>Preparation of patients</li> <li>Nurses role and responsibilities</li> </ul>		
VII	4	<b>BANDAGES, SPLINTS, CASTS AND TRACTION</b> Types , Uses, Preparation, Maintenance and storage	1	Bandaging
VIII	23	<b>RECOVERY ROOM/ SURGICAL INTENSIVE CARE UNIT</b> <ul style="list-style-type: none"> <li>Set up and organization</li> </ul>	2	Transferring of the patient

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Unit	Hrs	Theory	Hrs	Practical
		<ul style="list-style-type: none"> <li>• Management of patient</li> <li>• Reporting and recording</li> <li>• Transportation of patient</li> <li>• Nurses role and responsibilities</li> </ul>		
IX	8	<b>FLUID THERAPY</b> <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 responsibilities</li> </ul>	2	<ul style="list-style-type: none"> <li>- Fluid therapy in various disorders</li> <li>- Administration of blood and its components</li> </ul>

**BIBLIOGRAPHY**

1. Kollef m., Isakow w. The Washington Manual of Critical Care. 2012. 2<sup>nd</sup> edition, Lippincott Williams, New Delhi.
2. Urden L. Priorities in Critical Care Nursing. 2012, 6<sup>th</sup> edition, Elsevier St. Lois.
3. Chia B. Clinical Electro Cardiography. 1985, 1<sup>st</sup> edition, PG publishing , Singapore.
4. Woods. S., Cardiac Nursing . 2010, 6<sup>th</sup> edition, Wolter's Kluwer.
5. Balasubramanian T., Respiratory Medicine for nurses and paramedics.2008, 1<sup>st</sup> edition, Jaypee Brothers.
6. Udwadia F. Principles of Critical Care. 2014, 3<sup>rd</sup> edition, Jaypee Brothers.
7. Lucita Mary, Cardiovascular Nursing. 2010, 2<sup>nd</sup> edition.
8. Kaddoura S. Echo Made easy. 2009, 2<sup>nd</sup> edition, Churchill Livingstone.
9. Jeremias A. Cardiac Intensive Care. 2010, 2<sup>nd</sup> edition. Saunders
10. Baliga R. Practical Cardiology. 2009, 2<sup>nd</sup> edition. Wolters Kluwer.
11. Pappano A. Cardiovascular Physiology. 2013, 10<sup>th</sup> edition, Mosby.
12. Hampton J. The ECG in practice. 2013, 6<sup>th</sup> edition, Churchill Livingstone.
13. Jacobson C., Marzlin K, Webner C Cardiovascular Nursing Practice: A Comprehensive Resource Manual and Study Guide for Clinical Nurses, 2014. 1<sup>st</sup> Edition.
14. Johnson K., Anderson K., Oxford Handbook of Cardiac Nursing, 2007, 1<sup>st</sup> edition.
15. Finkelmeier B. Cardiothoracic Surgical Nursing, 2000.
16. Marzlin K. Cardiovascular Nursing: A Comprehensive Overview, 2011
17. Fuster V., Walsh R., Harrington R Hurst's The Heart

**SCHEME OF EXAMINATION**

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

**INTERNAL ASSESSMENT****(25 MARKS)**

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



## Post Basic Diploma in Operation Room Nursing

**SUPERVISION AND MANAGEMENT, CLINICAL TEACHING, ELEMENTARY 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 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.

**Section A: Supervision and Management****30 hrs**

Unit	Hrs	Theory	Hrs	Practical
I	15	<b>SUPERVISION AND MANAGEMENT</b> <ul style="list-style-type: none"> <li>□ Management <ul style="list-style-type: none"> <li>▪ Definition &amp; Principles</li> <li>▪ Elements of management of Operation room – planning, organizing, staffing, reporting, recording and budgeting.</li> <li>▪ Operation room management – time, material and personnel.</li> <li>▪ Physical Layout of Operation room : Design, size, shape, colour, ventilation with air conditioning, lighting, ultra clean air system, traffic flow pattern, zones of risk, sign of various facilities.</li> </ul> </li> <li>□ Clinical supervision <ul style="list-style-type: none"> <li>▪ Introduction, definition and objectives of supervision</li> <li>▪ Principles and functions of supervision</li> <li>▪ Qualities of supervisors</li> <li>▪ Responsibilities of clinical supervisors</li> <li>▪ Practical 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 <ul style="list-style-type: none"> <li>▪ Nursing Audit</li> <li>▪ ISO, NABH , JCI accreditation</li> </ul> </li> </ul>	5	Preparation of <ul style="list-style-type: none"> <li>- SOPs</li> <li>- Performance appraisal tool</li> </ul>

## Post Basic Diploma in Operation Room Nursing

Unit	Hrs	Theory	Hrs	Practical
		<input type="checkbox"/> Performance appraisal <ul style="list-style-type: none"> <li>▪ Principles of performance evaluation</li> <li>▪ Tools of performance appraisal – rating scales, checklist, peer reviews, self appraisal</li> </ul> <input type="checkbox"/> Staff development <ul style="list-style-type: none"> <li>▪ Introduction and purposes</li> <li>▪ In-service education</li> <li>▪ Continuing education</li> </ul>		
II	5	<b>PROFESSIONAL TRENDS</b> <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. <input type="checkbox"/> Expanding role of the nurse: Specialist nurse, nurse practitioner etc. <input type="checkbox"/> Professional organizations.		
III	5	<b>MEDICO – LEGAL ASPECTS</b> <input type="checkbox"/> Legislations and regulations related to OR <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"> <li>▪ Bill of Right of a patient</li> <li>▪ Case studies of Judgement with regard to negligence of services in the Hospital</li> </ul> <input type="checkbox"/> Records and Reports <input type="checkbox"/> Role of the nurse in Legal issues <input type="checkbox"/> Professional practice issues in the OR <input type="checkbox"/> Bioethical issues in OR <ul style="list-style-type: none"> <li>▪ ethics, ethical principles,</li> <li>▪ withholding and withdrawing treatment,</li> <li>▪ Ethical decision making in a OR</li> <li>▪ Code of professional conduct and practice standards.</li> </ul>		

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**Section B: Clinical Teaching**

**30 hrs**

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

**Section C: Elementary research and statistics**

**30 hrs**

Unit	Hrs	Theory	Hrs	Practical
V	18	<b>RESEARCH</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Research and research process</li> <li><input type="checkbox"/> Types of Research</li> <li><input type="checkbox"/> Research problem /question</li> <li><input type="checkbox"/> Review of Literature</li> <li><input type="checkbox"/> Research approaches and designs</li> <li><input type="checkbox"/> Sampling</li> <li><input type="checkbox"/> Data collection: tools and techniques</li> <li><input type="checkbox"/> Analysis and interpretation of data</li> <li><input type="checkbox"/> Communication and utilization of Research</li> <li><input type="checkbox"/> Research priorities in OR</li> </ul>	2	Presentation of research proposal
	7	<b>STATISTICS</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> 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><input type="checkbox"/> Measures of central tendency: Mean, Median, Mode</li> <li><input type="checkbox"/> Measures of Variance</li> <li><input type="checkbox"/> Normal probability and tests of significance</li> <li><input type="checkbox"/> Co-efficient of correlation</li> <li><input type="checkbox"/> Statistical packages and its application</li> <li><input type="checkbox"/> Preparing a research proposal</li> <li><input type="checkbox"/> Application of Computers.</li> </ul>	3	Computer application – practicals <ul style="list-style-type: none"> <li>• MS word</li> <li>• MS Excel</li> <li>• MS PPT</li> </ul>

## **BIBLIOGRAPHY**

### **Supervision and management**

1. TNAI. Nursing Administration and Management, Academic Press: New Delhi,
2. Shakharkar, B M. Principles of Hospital Administration and Planning, Jaypee Brothers: Bangalore,
3. Pai, Pragna. Effective Hospital Management, The National Book Depot: Mumbai,
4. Basavanthappa, B T. Nursing Administration, J P Brothers Medical Publishers: New Delhi
5. Goel, & Kumar, R. Hospital Administration and Management, Deep and Deep Publications: New Delhi,
6. Russels, C S. Management & Leadership for Nurse Managers, Jones Bartlett Publishers: London,
7. Francis, E M & Desouza, Mario. Hospital Administration, Jaypee Brothers Medical Publishers: New Delhi,
8. Hersey, P., Blanchard, H K & Johnson, E D. Management of Organizational Behavior, Pearson Education Indian Branch: New Delhi.
9. Barret, Jean. Ward Management and Teaching, English Book Society: New Delhi,

### **Clinical Teaching**

1. Bhatia, Kamala & Bhatia B.D.: The Principles and Methods of Teaching: Delhi, Doaba House.
2. Neeraja, Nursing Education, New Delhi, Jaypee Brother.
3. Safaya, Raghunath & Shaida, B.D. Educational Theory & Practice, Delhi, Dhanpat Row & Sons.
4. Bhatia, Hans Raj Elements of Educational Psychology, Bombay, Qnent Conpman Sthed.

### **Elementary research and statistics**

1. Polit, D.F. & Beck CT, Nursing Research, Principles and Methods, Lippincott Williams & Wilkins, Philadelphia.
2. Polit Dennis and Hunglar B P, Nursing research principles and methods, Lippincott, Philadelphia.
3. Laura A. Talbot, Principles and practice of nursing research, Mosby St. Louis.
4. Dorothy YB & Marie TH, Fundamentals of research in Nursing, Jones & Bartlett Publishers, Boston.
5. Mahajan Methods in Bio statistics.
6. Trece E.W. & Treece JW: Elements of Research in Nursing, The CV Mosby Company St, Louis

**SCHEME OF EXAMINATION**

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

**INTERNAL ASSESSMENT****(25 MARKS)**

<b>Sr No</b>	<b>Item</b>	<b>Marks allotted</b>	<b>Weightage (%)</b>	<b>Marks out of 25</b>
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	10	2.5
	d) Prepare clinical rotation plan	25	10	2.5
4.	Attendance		10	2.5
	<b>Total</b>	<b>425</b>	<b>100</b>	<b>25</b>

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

<b>Sr. No.</b>	<b>Operation Room</b>	<b>As per INC (In Weeks)</b>	<b>No. of Hrs</b>
1.	Gastro Intestinal	4	136
2.	Nephrology and urology surgery	4	136
3.	Neurology surgery	4	136
4.	Cardiovascular and thoracic surgery	4	136
5.	Ortho surgery	4	136
6.	ENT	2	68
7.	Ophthalmic	2	68
8.	Gynae and obstetrical	4	136
9.	Pediatric Surgery	4	136
10.	Burns and plastic	4	136
11.	Dental surgery	2	68
	<b>Total</b>	<b>38 weeks</b>	
	<b>Internship*</b>	<b>4 weeks</b>	<b>160</b>

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

**SCHEME OF EXAMINATION (Practical)**

<b>Sr. No</b>	<b>Theory Exam</b>	<b>Marks allotted</b>
1	Internal Assessment	100
2	External Assessment	100
	<b>Total</b>	<b>200</b>

**INTERNAL ASSESSMENT****(100 MARKS)**

<b>Sr No</b>	<b>Item</b>	<b>Marks allotted</b>	<b>Weightage (%)</b>	<b>Marks out of 25</b>
1.	First term Exam	50	10	10
2.	Pre-final Exam	100	30	30
3.	Assignments			
	a) Clinical Evaluation (4)	400	10	10
	b) Case studies (5)	250	10	10
	c) Case Presentations (5)	250	10	10
	d) Case Book	50	10	10
	e) Observation report	50	5	5
	f) Health Teachings (3)	75	5	5
4.	Attendance		10	10
	<b>Total</b>	<b>1225</b>	<b>100</b>	<b>100</b>

**ESSENTIAL NURSING SKILLS**

**I. Procedures to be Observed**

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

**II. Procedures to be Assisted**

1. Monitoring ICP
2. Advanced life support system
3. Arterial blood gas analysis
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 defibrillation, cardio pulmonary resuscitation
11. Endoscopy
12. Dialysis- hemodialysis, and peritoneal dialysis
13. Intra venous pyelography (IVP)
14. EEG
15. Bronchoscopy

**III. Procedures to be Performed**

- Work as scrub nurse
- Work as 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 equipments
- 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.

1. Neurological assessment: Glasgow coma scale
2. Pulse oxymetry
3. Arterial BP Monitoring
4. Venous access, ABG collection, monitoring



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5. Oxygen administration, suctioning, respiratory therapy, tracheostomy toilet
6. Airway management
  - i. Application of oropharyngeal airway
  - ii. Oxygen therapy
  - iii. CPAP
  - iv. Care of Tracheostomy
  - v. Endotracheal intubation
7. Care of Intercostal drainage
8. Nebulisation,
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 and assessment of risk factors, APGAR score.
14. Admission and discharge of critically ill patients
15. OG (Orogastric) 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, calculation of dosages, monitoring fluid therapy.
18. Administration of blood and its components
19. Procedures for prevention of infection: hand washing, disinfections and sterilization, surveillance, fumigation.
20. Collection of specimens related to critical care
21. Burns: assessment, calculation of fluids – crystalloids and colloids.
22. Maintenance of intake and output chart.
23. Wound dressing and prevention of contractures.
24. Rehabilitation.

**IV: other procedure**

