**Subject No. 2**

CLINICAL SPECIALITY -II

**CHILD HEALTH NURSING**

**(PEDIATRIC NURSING)**

Total: 1110 Hours Theory: 150 Hours Practical: 960 Hours

**AIM:**

This course is designed to assist students in developing expertise and in depth understanding in the field of Pediatric Nursing. It will help students to develop advanced skills for nursing intervention in various pediatric medical and surgical conditions. It will enable the student to function as pediatric nurse practitioner/specialist. It 'will further enable the student to function as educator, manager, and researcher in the field of Pediatric nursing.

**OBJECTIVES:**

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

- Apply the nursing process in the care of ill infants to pre adolescents in hospital and community
- Demonstrate advanced skills/competence in nursing management of children with medical and surgical problems.
- Recognize and manage emergencies in children.
- Provide nursing care to critically ill children.
- Utilize the recent technology and various treatment modalities in the management of high risk children.
- Prepare a design for layout and describe standards for management of pediatric units/hospitals.
- Identify areas of research in the field of pediatric nursing.

**COURSE CONTENTS:**

**Unit I -Introduction:**

- Current principles, practices and trends in Pediatric Nursing.
- Role of pediatric nurse in various settings -Expanded and extended.

**Unit II -Disease Conditions in Children**:

- ❖ Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures), treatment modalities and nursing intervention in selected pediatric medical disorders:

- Child with respiratory disorders:
  - Upper respiratory tract: choanal atresia, tonsillitis, epistaxis, aspiration.
  - Lower respiratory tract: Broncheolitis, Bronchopneumonia, Asthma, cystic fibrosis
- Child with gastro-intestinal disorders:
  - Diarrheal diseases, gastro-esophageal reflux.

- Hepatic disorders: Hepatitis, Indian childhood cirrhosis, liver transplantation.
- Malabsorption syndrome, Malnutrition

- Child with renal/ urinary tract disorders:
  - Nephrotic syndrome, Nephritis, Hydronephrosis,
  - Hemolytic-uremic syndrome, kidney transplantation
- Child with cardio-vascular disorders:
  - Acquired: Rheumatic fever, Rheumatic heart disease,
  - Congenital: Cynotic and acynotic
- Child with endocrine/metabolic disorders:
  - Diabetes insipidus, Diabetes Mellitus – IDDM, NIDDM, hyper and hypo thyroidism,
  - Phenylketonuria, galactosemia
- Child with Neurological disorders:
  - Convulsions, Meningitis, encephalitis, guillian- Barre syndrome
- Child with oncological disorders:
  - Leukemias, Lymphomas, Wilms' tumor, nephroblastomas, neuroblastomas,
  - Rhabdomyosarcoma, retinoblastoma, hepatoblastoma, bone tumors
- Child with blood disorders:
  - Anemias, thalassemias, hemophilia, polycythemia,
  - Thrombocytopenia, and disseminated intravascular coagulation
- Child with skin disorders
- Common Eye and ENT disorders
- Common Communicable diseases
- Liver transplantation.
- Guillian- Barre syndrome.
- Bone tumors.
- Disseminated intravascular coagulation.
- Nursing care during blood transfusion.

**Unit III -Assessment:**

❖ Assessment(including interpretation of various invasive and non-invasive diagnostic procedures), treatment modalities including cosmetic surgery and nursing interventions in selected pediatric surgical problems/ Disorders:

- Gastrointestinal system: Cleft lip, cleft palate and conditions requiring plastic surgery, Tracheo esophageal fistula/atresia, Hirschsprungs' disease/megacolon, malrotation, intestinal obstruction, duodenal atresia, gastrochisis, exomphalus, anorectal malformation, omphalocele, diaphragmatic hernia
- Anomalies of the nervous system: Spina bifida, Meningocele, Myelomeningocele, hydrocephalus
- Anomalies of the genito-urinary system: Hypospadias, Epispadias, Undescended testes, Exstrophy bladder

- Anomalies of the skeletal system
- Eye and ENT disorders
- Nursing management of the child with traumatic injuries: General principles of managing Pediatric trauma
  - Head injury, abdominal injury, poisoning, foreign body obstruction, burns & Bites.
- Child with oncological disorders: Solid tumors of childhood, Nephroblastoma, Neuro blastoma, Hodgkin's/Non-Hodgkin's Lymphoma, Hepatoblastoma, Rhabdomyosarcoma.
- Management of stomas, catheters and tubes.
- Management of wounds and drainages.

**Unit IV -Intensive care for pediatric clients:**

- Resuscitation, stabilization & monitoring of pediatric patients
- Anatomical & physiological basis of critical illness in infancy and childhood
- Care of child requiring long-term ventilation
- Nutritional needs of critically ill child
- Legal and ethical issues in pediatric intensive care
- Intensive care procedures, equipment and techniques
- Documentation

**Unit V- High Risk Newborn:**

- Concept, goals, assessment, principles.
- Nursing management of :
  - Post-mature infant and baby of diabetic and substance use mothers.
  - Respiratory conditions, Asphyxia neonatorum, neonatal apnoea meconium aspiration syndrome, pneumo thorax, pneumo mediastinum
  - Icterus neonatorum.
  - Birth injuries.
  - Hypoxic ischaemic encephelopathy
  - Congenital anomalies.
  - Neonatal seizures.
  - Neonatal hypocalcaemia, hypoglycemia, hypomagnesaemia.
  - Neonatal heart diseases.
  - Neonatal hemolytic diseases
  - Neonatal infections, neonatal sepsis, opthalmia neonatorum, cogenital syphilis, HIV/AIDS
  - **Pierre robin syndrome**
  - **Caroli disease**
- Advanced neonatal procedures.
- Calculation of fluid requirements.
- Hematological conditions – erythroblastosis fetalis, hemorrhagic disorder in the newborn
- Organization of neonatal care, services (Levels), transport, neonatal intensive care unit, organization and management of nursing services in NICU.

- Hemorrhagic disorder in the newborn.

**Unit VI -Developmental disturbances and implications for nursing:**

- Adjustment reaction to school,
- Learning disabilities
- Habit disorders, speech disorders,
- Conduct disorders,
- Early infantile autism, Attention deficit hyperactive disorders (ADHD), depression and childhood schizophrenia.

**Unit VII -Challenged child and implications for nursing:**

- Physically challenged, causes, features, early detection & management
- Cerebral palsied child,
- Mentally challenged child.
- Training & rehabilitation of challenged children

**Unit VIII -Crisis and nursing intervention:**

- The hospitalized child,
- Terminal illness & death during childhood
- Nursing intervention-counseling

**Unit IX -Drugs used in Pediatrics:**

- Criteria for dose calculation
- Administration of drugs, oxygen and blood
- Drug interactions
- Adverse effects and their management

**Unit X -Administration and management of pediatric care unit:**

- Design & layout
- Staffing,
- Equipment, supplies,
- Norms, policies and protocols
- Practice standards for pediatric care unit
- Documentation

**Unit XI -Education and training in Pediatric care:**

- Staff orientation, training and development,
- In-service education program,
- Clinical teaching programs.

**PRACTICAL:**

- Clinical practice in Pediatric medical, surgical, cardio thoracic wards, neonatal intensive care unit, labor room, pediatric OPD, immunization, well baby clinic, child guidance clinics, school health centers, community health.
- Clinical participation of a child- per week by each student.
- Field visits: Child care centre, Anganwadi, play school, special schools for challenged children, Juvenile court, UNICEF, Orphanage, Crèche, SOS Village.
- **Procedures to be observed**: Echocardiogram, Ultrasound head, ROP Screening (Retinopathy of prematurity).
- **Procedures to be assisted**: Advanced neonatal life support, Lumbar puncture, Arterial blood gases, ECG recording, Umbilical Catheterization – Arterial and venous, Arterial B.P monitoring, Blood transfusion – Exchange transfusion full and partial, I.V. cannulation and therapy, arterial catheterization, chest tube insertion, endo tracheal intubation, ventilation, insertion of long line, productive and child health.
- **Procedures to be performed**:

  **Airway management**- application of oro pharyngeal airway, oxygen therapy, CPAP, care of treacheostomy, endotracheal intubation, Neonatal resuscitation.

  **Monitoring of neonate** –Clinically and with monitor, CRT (Capillary refill time), assessment of jaundice, ECG, Gastric Lavage, Setting of Ventilator, Phototherapy.

  **Assessment of neonate** – Identification and assessment of risk factors, APGAR score, gestational age, anthropometric assessment, Weighing the baby.

  **New born examination**: Detection of life threatening congenital abnormalities, Admission and discharge of neonate in hospital.

  **Feeding** – management of breast feeding, artificial feeding, expression of breast milk, Oro gastric tube insertion, Gavage feeding, TPN – total parental nutrition, breast feeding counseling.

  **Thermoregulation** – Axillary temperature, kangaroo mother care, use of radium warmer, incubators, management of Thermo regulation and control

  Administration of drugs – I.M., I.V. injection, I.V. Cannulation and fixation of infusion pump, calculation of dosages, neonatal formulation of drugs, use of tuberculin/insulin syringe, monitoring fluid therapy, blood administration,

  **Prevention of infection**- hand washing, disinfection and sterilization, surveillance, fumigation.

  **Collection of Specimen**: Collection & sending to laboratory.

  **Instruments and Equipments:** Setting, use and maintenance of basic equipments – Ventilators, $O_2$ analyzer, monitoring equipment, phototherapy unit, pulse meter, infusion pump, radiant warmer, incubators, centrifuge machine, etc.

CLINICAL SPECIALITY- II

**CHILD HEALTH NURSING**

**(PEDIATRIC NURSING)**

| **Unit No & Hours** | **Objective** | **Contents** |
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| **I**<br>**(05 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understand the principles and role of nurse in pediatric care.<br>**Skill:** Practice principles of pediatric nursing in clinical setting.<br>**Attitude:** Adapts to various roles of pediatric nurse in different settings. | **Introduction**<br>• Current principles, practices and trends in Pediatric Nursing.(2 hours)<br>• Role of pediatric nurse in various settings -Expanded and extended.(3 hours) |

**Unit I: Introduction**

| **Course Outcome** | **Program outcome** | | | | | | |
|---|---|---|---|---|---|---|---|
| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
| **CO1:** Interpret the meaning of pediatrics and Pediatric nursing. Explain the current trends in pediatric nursing | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO2 :**Describe the ethics in pediatric nursing | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO3 :** Describe the factors influencing on trends in pediatric nursing | 3 | 3 | 3 | 3 | 3 | 3 | |
| **CO4:**Explain the Extended role of pediatric nurse | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO5:** Explain the Expanded role of | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

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| pediatric nurse | | | | | | | | |
| **CO6:** Explain modern concept of child care | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO7**: Explain changing role of pediatric nurse. | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **II (35 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understands and explains the pathopyhsiology and treatment modalities for various systemic diseases in children.<br>**Skill:** Renders Competent, comprehensive and culturally congruent care to the children suffering from various systemic diseases.<br>**Attitude:** Develops competence in rendering care to children with different levels of dependency and serious nature of disease condition. | ❖ Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures), treatment modalities and nursing intervention in selected pediatric medical disorders:<br>• Child with respiratory disorders:<br>– Upper respiratory tract: choanal atresia, tonsillitis, epistaxis, aspiration.<br>– Lower respiratory tract: Broncheolitis, Bronchopneumonia, Asthma, cystic fibrosis. (3 hours)<br>• Child with gastro-intestinal disorders:<br>– Diarrheal diseases, gastro-esophageal reflux.<br>– Hepatic disorders: Hepatitis, Indian childhood cirrhosis, liver transplantation.<br>– Malabsorption syndrome, Malnutrition. (3 hours)<br>• Child with renal/ urinary tract disorders:<br>– Nephrotic syndrome, Nephritis, Hydronephrosis,<br>– Hemolytic-uremic syndrome, kidney transplantation. (3 hours)<br>• Child with cardio-vascular disorders:<br>– Acquired: Rheumatic fever, Rheumatic heart disease,<br>– Congenital: Cynotic and acynotic. (3 hours)<br>• Child with endocrine/metabolic disorders:<br>– Diabetes insipidus, Diabetes Mellitus – IDDM, NIDDM, hyper and hypo thyroidism,<br>– Phenylketonuria, galactosemia. (3 hours)<br>• Child with Neurological disorders: | | | | | | |

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| | | - Convulsions, Meningitis, encephalitis, guillian- Barre syndrome. (3 hours)<br>• Child with oncological disorders:<br>- Leukemias, Lymphomas, Wilms' tumor, nephroblastomas, neuroblastomas,<br>- Rhabdomyosarcoma, retinoblastoma, hepatoblastoma, bone tumors.(3 hours)<br>• Child with blood disorders:<br>- Anemias, thalassemias, hemophilia, polycythemia,<br>- Thrombocytopenia, and disseminated intravascular coagulation. (3 hours)<br>• Child with skin disorders.(2 hours)<br>• Common Eye and ENT disorders.(2 hours)<br>• Common Communicable diseases.(2 hours)<br>• Liver transplantation.(1 hour)<br>• Guillian- Barre syndrome.(1 hour)<br>• Bone tumors.(1 hour)<br>• Disseminated intravascular coagulation.(1 hour)<br>• Nursing care during blood transfusion.(1 hour) |

**Unit II -Disease Conditions in Children**

| **Course Outcome** | **Program outcome** | | | | | | |
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| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
| **CO-1:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures of Upper respiratory tract: choanal atresia, | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

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| tonsillitis, epistaxis, aspiration. describe Lower respiratory tract Broncheolitis, Bronchopneumonia, Asthma, cystic fibrosis, describe treatment modalities and nursing intervention in selected respiratory disorders in children. | | | | | | | |
| **CO-2:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures of Diarrheal diseases, gastro-esophageal reflux, Hepatic disorders: Hepatitis, Indian childhood cirrhosis, liver transplantation, Malabsorption syndrome, Malnutrition, describe treatment modalities and nursing intervention in selected gastro-intestinal disorders in children. | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| **CO-3:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures of Nephrotic syndrome, Nephritis, Hydronephrosis, Hemolytic-uremic syndrome, kidney transplantation, describe treatment modalities and nursing intervention in selected renal/ urinary tract disorders in children. | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| **CO-4:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

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| diagnostic procedures of Acquired: Rheumatic fever, Rheumatic heart disease, Congenital: Cynotic and acynotic. describe treatment modalities and nursing intervention in selected cardio-vascular disorders in children. | | | | | | | |
| **CO-5:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures of Diabetes insipidus, Diabetes Mellitus – IDDM, NIDDM, hyper and hypo thyroidism, Phenylketonuria, galactosemia. describe treatment modalities and nursing intervention in selected endocrine/metabolic disorders in children. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO-6:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures of Convulsions, Meningitis, encephalitis, guillian- Barre syndrome. describe treatment modalities and nursing intervention in selected Neurological disorders in children. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO-7:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures of Leukemias, Lymphomas, Wilms' tumor, | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

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| nephroblastomas, neuroblastomas, Rhabdomyosarcoma, retinoblastoma, hepatoblastoma, bone tumors. describe treatment modalities and nursing intervention in selected oncological disorders in children. | | | | | | | |
| **CO-8:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures of Anemias, thalassemias, hemophilia, polycythemia, Thrombocytopenia, and disseminated intravascular coagulation. describe treatment modalities and nursing intervention in selected blood disorders in children. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO-9:** Explain Pathophysiology, assessment, diagnostic procedures of skin disorders. Describe treatment modalities and nursing intervention in selected skin disorders in children. | 3 | 3 | 2 | 2 | 3 | 2 | 2 |
| **CO-10:** Explain Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures) of Common Eye and ENT disorders describe treatment modalities and nursing intervention in selected Common Eye and ENT disorders in children. | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| **CO-11:** Explain the Common Communicable diseases describe treatment modalities and nursing | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

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| intervention in selected Common Communicable diseases in children. | | | | | | | |
| **CO-12:** Explain Nursing care during blood transfusion. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

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| **III (35 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understand and describe various treatment modalities and nursing care requirements in children requiring surgery on different systems.<br><br>**Skill:** Perform pre-operative assessment and renders pre-operative, intra operative and post-operative efficient care to the pediatric clients.<br><br>**Attitude:** Adapts to the needs of children undergoing surgery. | ❖ Assessment(including interpretation of various invasive and non-invasive diagnostic procedures), treatment modalities including cosmetic surgery and nursing interventions in selected pediatric surgical problems/ Disorders:<br>• Gastrointestinal system: Cleft lip, cleft palate and conditions requiring plastic surgery, Tracheo esophageal fistula/atresia, Hirschsprungs' disease/megacolon, malrotation, intestinal obstruction, duodenal atresia, gastrochisis, exomphalus, anorectal malformation, omphalocele, diaphragmatic hernia. (4 hours)<br>• Anomalies of the nervous system: Spina bifida, Meningocele, Myelomeningocele, hydrocephalus.(4 hours)<br>• Anomalies of the genito-urinary system: Hypospadias, Epispadias, Undescended testes, Exstrophy of bladder. (4 hours)<br>• Anomalies of the skeletal system.(4 hours)<br>• Eye and ENT disorders. (4 hours)<br>• Nursing management of the child with traumatic injuries: General principles of managing Pediatric trauma<br>- Head injury, abdominal injury, poisoning, foreign body obstruction, burns & Bites. (4 hours)<br>• Child with oncological disorders: Solid tumors of childhood, Nephroblastoma, Neuro blastoma, Hodgkin's/Non-Hodgkin's Lymphoma, Hepatoblastoma, Rhabdomyosarcoma. (4 hours)<br>• Management of stomas, catheters and tubes. (4 hours)<br>• Management of wounds and drainages. (3 hours) |

| **Unit III -Assessment** | |
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| **Course Outcome** | **Program outcome** |

| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
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| CO1: Explain the assessment, treatment modalities including cosmetic surgery and nursing interventions in gastrointestinal system disorders: Cleft lip, cleft palate and conditions requiring plastic surgery, Tracheo esophageal fistula/atresia, Hirschsprungs' disease/ megacolon, malrotation, intestinal obstruction, duodenal atresia, gastrochisis, exomphalus, anorectal malformation, omphalocele, diaphragmatic hernia. | 03 | 03 | 02 | 02 | 01 | 01 | 01 |
| CO2: Explain the assessment, treatment modalities including cosmetic surgery and nursing interventions in nervous system disorders: Spina bifida, Meningocele, Myelomeningocele, hydrocephalus. | 03 | 03 | 02 | 02 | 01 | 01 | 01 |
| CO3: Explain the assessment, treatment modalities including cosmetic surgery and nursing interventions in genito-urinary system: Hypospadias, Epispadias, Undescended testes, Exstrophy of | 03 | 03 | 02 | 02 | 01 | 01 | 01 |

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| bladder. | | | | | | | |
| CO4: Explain the assessment, treatment modalities including cosmetic surgery and nursing interventions in skeletal system. | 03 | 03 | 02 | 02 | 01 | 01 | 01 |
| CO5: Explain the assessment, treatment modalities including cosmetic surgery and nursing interventions in Eye and ENT disorders. | 03 | 03 | 02 | 02 | 01 | 01 | 01 |
| CO6: Explain the assessment, treatment modalities including cosmetic surgery and nursing interventions in traumatic injuries: General principles of managing Pediatric trauma | 03 | 03 | 02 | 02 | 01 | 01 | 01 |
| CO7: Explain the assessment, treatment modalities including cosmetic surgery and nursing interventions in head injury, abdominal injury, poisoning, foreign body obstruction, burns & Bites. | 03 | 03 | 02 | 02 | 01 | 01 | 01 |
| CO8: Explain the assessment, treatment modalities including cosmetic surgery and nursing interventions in oncological disorders: Solid tumors of childhood, Nephroblastoma, Neuro blastoma, Hodgkin's/Non-Hodgkin’s | 03 | 03 | 02 | 02 | 01 | 01 | 01 |

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| Lymphoma, Hepatoblastoma, Rhabdomyosarcoma. | | | | | | | |
| CO9: Describe the management of stomas, catheters and tubes. | 03 | 03 | 02 | 02 | 01 | 01 | 01 |

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| **IV (10 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understand and explain the needs of the pediatric clients requiring intensive care.<br>**Skill:** Render efficient pediatric intensive care.<br>**Attitude:** Identify needs for intensive care among pediatric clients and act promptly. | **Intensive care for pediatric clients**<br>• Resuscitation, stabilization & monitoring of pediatric patients. (2 hours)<br>• Anatomical & physiological basis of critical illness in infancy and childhood.(2 hours)<br>• Care of child requiring long-term ventilation. (1 hour)<br>• Nutritional needs of critically ill child. (1 hour)<br>• Legal and ethical issues in pediatric intensive care. (1 hour)<br>• Intensive care procedures, equipment and techniques. (2 hours)<br>• Documentation. (1 hour) |

**Unit IV: Intensive care for pediatric clients**

| **Course Outcome** | **Program outcome** | | | | | | |
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| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
| CO-1: Explain Resuscitation, | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-2: Describe stabilization & monitoring of pediatric patients | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-3: Explain Anatomical & physiological basis of critical illness in infancy and childhood | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-4: Illustrate Care of child requiring long-term ventilation | 2 | 2 | 2 | 2 | 2 | 2 | 1 |

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| CO-5: Describe Nutritional needs of critically ill child | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-6: Explain Legal and ethical issues in pediatric intensive care | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-7: Describe Intensive care procedures, equipment and techniques | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| CO-8: Explain Documentation | 2 | 2 | 2 | 2 | 2 | 2 | 1 |

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| **V (20 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understand and explain the high risk newborn conditions.<br>**Skill:** Provide effective nursing care to high-risk newborn.<br>**Attitude:** Identify needs for special care among high risk newborn baby and act promptly. | **High Risk Newborn**<br>• Concept, goals, assessment, principles.(2 hours)<br>• Nursing management of :<br>– Post-mature infant, and baby of diabetic and substance use mothers. (1 hour)<br>– Respiratory conditions, Asphyxia neonatorum, neonatal apnoea meconium aspiration syndrome, pneumo thorax, pneumo mediastinum. (1 hour)<br>– Icterus neonatorum. (1 hour)<br>– Birth injuries. (1 hour)<br>– Hypoxic ischaemic encephalopathy.(1 hour)<br>– Congenital anomalies, Neonatal seizures. (1 hour)<br>– Neonatal hypocalcaemia, hypoglycemia, hypomagnesaemia. (1 hour)<br>– Neonatal heart diseases. (1 hour)<br>– Neonatal hemolytic diseases, Neonatal infections, neonatal sepsis, opthalmia neonatorum, cogenital syphilis, HIV/AIDS. (1 hour)<br>– **Pierre robin syndrome. Caroli disease.** (1 hour)<br>• Advanced neonatal procedures.(2 hours)<br>• Calculation of fluid requirements.(1 hour)<br>• Hematological conditions – erythroblastosis fetalis, hemorrhagic disorder in the newborn. (2 hours) |

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| | | • Organization of neonatal care, services(Levels), transport, neonatal intensive care unit, organization and management of nursing services in NICU.(2 hours)<br>• Hemorrhagic disorder in the newborn.(1 hour) |

**Unit V: High Risk Newborn**

| **Course Outcome** | **Program outcome** | | | | | | |
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| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
| CO1: Enlist the classification of high-risk newborn. Explain categorize- for follow up of high – risk newborn. | 3 | 2 | 3 | 3 | 2 | 3 | 2 |
| CO2: Enlist the etiology of post maturity infant. Explain the nursing care plan for child who is having diabetics. | 3 | 3 | 3 | 3 | 2 | 2 | 2 |
| CO3: list symptoms of asphyxia neonatorum. Illustrate the management of asphyxia neonatorum. | 3 | 3 | 3 | 3 | 3 | 2 | 2 |
| CO4: Enumerate the clinical features of respiratory distress syndrome. Identify the diagnostic evaluation of respiratory distress syndrome. | 3 | 2 | 2 | 3 | 2 | 3 | 2 |
| CO5: Define birth injuries. Explain types of head injury | 3 | 3 | 3 | 3 | 2 | 2 | 2 |
| CO6: Define hypoxic-ischemic | 3 | 2 | 2 | 2 | 2 | 2 | 1 |

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| encephalopathy Illustrate the Sarnat Staging System of hypoxic-ischemic encephalopathy | | | | | | | |
| CO7: Enumerate the etiology of Congenital anomalies. Describe the nursing management of congenital anomalies. | 3 | 2 | 3 | 3 | 2 | 3 | 3 |
| CO8: Enlist the type of neonatal seizures. Illustrate the medical and nursing management of neonatal seizure. | 3 | 2 | 3 | 3 | 3 | 2 | 2 |
| CO9: Identify the clinical hypocalcaemia. Explain two nursing diagnosis of hypocalcaemia. | 3 | 2 | 3 | 3 | 3 | 2 | 2 |
| CO10: Enumerate the classification of Neonatal heart diseases .Describe the nursing diagnosis of neonatal heart disease. | 3 | 3 | 2 | 2 | 2 | 2 | 2 |
| CO11: Define Neonatal hemolytic diseases. Illustrate the nursing management of neonatal hemolytic disease. | 3 | 2 | 2 | 2 | 2 | 2 | 3 |
| CO12: Illustrate the clinical features of neonatal sepsis Elaborate the management of neonatal sepsis. | 3 | 2 | 2 | 3 | 3 | 3 | 2 |
| CO13: Define Pierre robin syndrome. Describe the nursing diagnosis of pierre robin syndrome. | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| CO 14: Enlist the Advanced neonatal procedures. Explain the care of patients on ventilator | 3 | 3 | 3 | 2 | 2 | 3 | 2 |

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| CO 15: Illustrate the drug calculation formula for children's. | 3 | 2 | 2 | 2 | 2 | 1 | 2 |
| CO 16: Define Erythroblastosis Fetalis. Describe the Rh incompatibility | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| CO 17: Enumerate the objective of NICU. Illustrate the criteria for admission in NICU. | 3 | 3 | 3 | 3 | 3 | 2 | 3 |

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| **VI (10 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understand developmental disturbances and their implications for pediatric nursing.<br><br>**Skill:** Develop skills in identifying developmental disturbances at the earliest.<br><br>**Attitude:** Guide the parents for corrective therapeutic modalities for developmental disturbances | **Developmental disturbances and implications for nursing**<br>• Adjustment reaction to school. (2 hours)<br>• Learning disabilities. (2 hours)<br>• Habit disorders, speech disorders. (2 hours)<br>• Conduct disorders. (2 hours)<br>• Early infantile autism, Attention deficit hyperactive disorders (ADHD), depression and childhood schizophrenia.(2 hours) |

**Unit VI: Developmental disturbances and implications for nursing**

| **Course Outcome** | **Program outcome** | | | | | | |
|---|---|---|---|---|---|---|---|
| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
| CO-1: Explain Adjustment reaction | 2 | 2 | 2 | 2 | 2 | 2 | 1 |

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| to school. | | | | | | | |
| CO-2: Describe Learning disabilities. | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-3: Explain Habit disorders, | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-4: Describe speech disorders. | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-5: Explain Conduct disorders. | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-6: Explain Early infantile autism, | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| CO-7: Describe Attention deficit hyperactive disorders (ADHD), | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-8:Explain depression | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| CO-9: Describe childhood schizophrenia. | 2 | 2 | 2 | 2 | 2 | 2 | 1 |

| | | |
|---|---|---|
| **VII (10 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understand the special needs of the challenged children.<br>**Skill:** Cater to the special needs of the challenged children suffering from various diseases.<br>**Attitude:** Develop an understanding for the peculiar behavior of the challenged behavior in health &illness. | **Challenged child and implications for nursing**<br>• Physically challenged, causes, features, early detection & management. (2 hours)<br>• Cerebral palsied child. (3 hours)<br>• Mentally challenged child.(3 hours)<br>• Training & rehabilitation of challenged children. (2 hours) |

**Unit VII: Challenged child and implications for nursing**

| **Course Outcome** | **Program outcome** | | | | | | |
|---|---|---|---|---|---|---|---|
| | Clinician/ Nurse | Professional | Communicator | Leader and member of the | Lifelong learner | Critical thinker | Researcher |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | educator | | | health care team and system | | | |
| **CO1:** Identify the classification of challenged children. | 3 | 3 | 2 | 1 | 1 | 1 | 1 |
| **CO2:** Define physically challenged children and state the causes of physical challenged. | 3 | 3 | 2 | 2 | 2 | 1 | 1 |
| **CO3:** Describe the various physically challenges in children. | 3 | 3 | 2 | 1 | 1 | 1 | 1 |
| **CO4:** Determine the features, early detection and management of handicapped children. | 3 | 3 | 2 | 2 | 1 | 1 | 1 |
| **CO5:** Recognize the causes and classification of cerebral palsy. | 2 | 3 | 2 | 2 | 1 | 1 | 1 |
| **CO6:** Explain the medical and nursing management of cerebral palsy. | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| **CO7:** Illustrate the causes in detail and categorize the mentally challenged children. | 3 | 2 | 2 | 2 | 1 | 1 | 1 |
| **CO8:**.Explain the measure for preventing the mentally challenged children. | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| **CO9:** Explain various problems of socially challenged children. | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
| **CO10:** Recognize the training & rehabilitation of challenged children. | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| **CO11:** Explain the nurse's role in rehabilitation of challenged children. | 3 | 3 | 1 | 2 | 2 | 1 | 1 |
| **CO12:** Develop the nursing care plan for the challenged children. | 3 | 3 | 2 | 1 | 1 | 1 | 1 |
| **VIII** | At the end unit the students are | **Crisis and nursing intervention** | | | | | |

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| **(05 hrs)** | able to:<br>**Knowledge:** Understand the nature of crises situations for pediatric clients.<br>**Skill:** Recognize the various crises situations and perform promptly and efficiently.<br>**Attitude:** Identify means to prevent crises among pediatric population and provide health education to this effect. | • The hospitalized child. (2 hours)<br>• Terminal illness & death during childhood. (2 hours)<br>• Nursing intervention-counseling. (1 hour) |

**Unit VIII: Crisis and nursing intervention**

| **Course Outcome** | **Program outcome** | | | | | | |
|---|---|---|---|---|---|---|---|
| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
| **CO: 1-** Explain about hospitalized child. | 3 | 3 | 3 | 2 | 3 | 2 | 3 |
| **CO: 2-** Explain about terminal illness of childhood. | 3 | 3 | 3 | 2 | 3 | 2 | 3 |
| **CO: 3-** Describe about death during childhood. | 3 | 3 | 3 | 2 | 3 | 2 | 3 |
| **CO: 4-** Explain the nursing intervention in crisis. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

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| **IX**<br>**(05 hrs)** | At the end unit the students are able to:<br>**Knowledge**: Explain the drugs used in pediatric.<br>**Skill:** Administer various medications to pediatric clients | **Drugs used in Pediatrics**<br>• Criteria for dose calculation. (1 hour)<br>• Administration of drugs, oxygen and blood. (1 hour)<br>• Drug interactions. (1 hour)<br>• Adverse effects and their management. (1 hour) |

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| | correctly and observe for their effects.<br>**Attitude:** Educate parents about administration of medication to children of various age groups. | |

**Unit IX: Drugs used in Pediatrics**

| **Course Outcome** | **Program outcome** | | | | | | |
|---|---|---|---|---|---|---|---|
| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
| **CO: 1-** Explain the criteria for dose calculation. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO: 2-** Describe the administration of drugs, oxygen and blood. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO: 3-** Explain the drug interactions. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO: 4-** Enumerate the adverse effects and explain its management. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

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| **X**<br>**(10 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understand different policies, protocols and uses of various equipments in the pediatric wards.<br>**Skill:** Practice standards for pediatric care.<br>**Attitude:** Plan and design pediatric care unit. | **Administration and management of Pediatric care unit**<br>• Design & layout. (2 hours)<br>• Staffing. (1 hour)<br>• Equipment, supplies. (2 hours)<br>• Norms, policies and protocols. (2 hours)<br>• Practice standards for pediatric care unit. (2 hours)<br>• Documentation. (1 hour) |

**Unit X: Administration and management of Pediatric care unit**

| Course Outcome | Program outcome | | | | | | |
|---|---|---|---|---|---|---|---|
| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
| **CO-1:** Describe the administration and management of Pediatric care unit, Design & layout. | 3 | 3 | 3 | 3 | **3** | **3** | **3** |
| **CO-2:** Explain the Staffing pattern in PICU. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO-3:** Enumerate the equipments and supplies in PICU. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO-4:** Explain the Norms, policies and protocols of PICU. | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| **CO-5:** Explain the practice standards for pediatric care unit. | 3 | 3 | 3 | 3 | 3 | 2 | 2 |
| **CO-6:** Explain the documentation in PICU. | 3 | 3 | 3 | 2 | 2 | 2 | 2 |

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|---|---|---|
| **XI (05 hrs)** | At the end unit the students are able to:<br>**Knowledge:** Understand need for staff orientation and development in pediatric nursing care.<br>**Skill:** Plan and implement in-service education programme for staff.<br>**Attitude:** Participates in clinical teaching activities. | **Education and training in Pediatric care**<br>• Staff orientation, training and development. (1 hour)<br>• In-service education program. (2 hours)<br>• Clinical teaching programs. (2 hours) |

**Unit XI: Education and training in Pediatric care**

| Course Outcome | Program outcome |
|---|---|

| | Clinician/ Nurse educator | Professional | Communicator | Leader and member of the health care team and system | Lifelong learner | Critical thinker | Researcher |
|---|---|---|---|---|---|---|---|
| **CO-1:** Describe the education and training in Pediatric care and Staff orientation. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO-2:** Explain the training and development in pediatric care. | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| **CO-3:** Explain the In-service education program. | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| **CO-4:** Explain the clinical teaching programs. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

**AREA AND DISTRIBUTION OF CLINICAL HOURS:**

| ***Sr. No.*** | ***Dept / Unit*** | ***No. of weeks*** | ***Total hours*** |
|---|---|---|---|
| 1. | Pediatric Medicine ICU | 4 | 120 |
| 2. | Pediatric Surgical ICU | 4 | 120 |
| 3. | NICU | 4 | 120 |
| 4. | Pediatric OT | 2 | 60 |
| 5. | Pediatric Medicine Ward | 6 | 180 |
| 6. | Pediatric Surgery Ward | 6 | 180 |
| 7. | Emergency Casualty | 4 | 120 |
| 8. | Field Visits | 2 | 60 |
| | Total | **32 weeks** | **960 hours** |

**TEACHING STRATEGY:**

Total Hours: 1110 Theory Hours: 150 Clinical Hours: 960

**TEACHING METHOD:**

- Lectures, Seminars, Case presentation & discussion. Clinical observation, **Symbiotic interdepartmental scientific activity (SISA), Inter departmental case discussion (IDCD) & Syndicate journal club.**

**A.V. AIDS:**

- OHP, LCD, Posters, Blackboard, Demonstration.

**ASSIGNMENTS:**

**Theory:**

| Sr. No. | Assignment | No./Quantity | Marks per Assignment | Total Marks |
|---|---|---|---|---|
| 1 | Seminar | Four | 1X50 | 200 |
| | | | Total Marks | **200** |

**Practical:**

| Sr. No. | Assignment | No./Quantity | Marks per Assignment | Total Marks |
|---|---|---|---|---|
| 1 | Teaching learning module preparation (Group work) | One | 1X25 | 25 |
| 2 | **Case study** | **One** | **1X25** | **25** |
| 3 | **Case Presentation** | **One** | **1X50** | **50** |
| 4 | Nursing Care Plans | Two | 1X25 | 50 |
| 5 | Specialty Procedure Evaluation (Minimum 2 ) | Two | 1X25 | 50 |
| 6 | Specific Day Celebration (Group work) | One | 1X25 | 25 |
| 6 | Super Specialty visit Report (Group work) | One | 1X50 | 50 |
| 7 | **Clinical Performance Evaluation** | **One** | **1X100** | **100** |
| | | | Total Marks | **375** |

**RECOMMENDED BOOKS:**


- Achar ST and Viswanathan -"Text book of Paediatrics; A Clinical Approach"
- Alexander NM,Brown MS;-" Paediatric Physical Diagnosis for Nurses"
- Ball- " Paediatric Nursing caring for children"
- Behrman, Richard K & Vaughan-"Nelson,s Textbook of Paediatrics"
- Blake G, Florence & Wright- "Essentials of Paediatric Nursing"
- Barbara EW- "Guidelines in the care of the low birth weight"
- Bowden Greenberg- "Pediatric Nursing Procedure"
- Browder J J- "Nursing care of children" FADavis
- Cameron, Jelinek et al;-"Text Book of Emergency Paediatric Medicine"
- Cloherty, John P & Stark, Ann R-"Manual Neonatal care"
- David Hull & Johnstan D- "Essentials Of Paediatrics"
- Elizabeth Hurlock-"Child Development"
- Ghai O P-"Essential Text Book Of Paediatrics"
- Ghosh Shanti- "Nutrition and child care"
- Ghosh Shanti- "Know your child"
- Gupte Suraj;-"Neonatal Emergencies"
- Gupte Suraj-"A Short Text book of Paediatrics"
- Guha DK-"Neonatology"
- Guha DK- "Manual of Practical newborn Care"
- Hathfield N- "Introductory Paediatric Nursing"
- Helens CL & Roberts- " Paediatric Nursing"
- Khilnany- "Practical approach to Paediatric Intensive Care"
- Kulkarni MC- "Manual of Neonatology"

- Klosner & Nancy Hathfield- “Introductory Maternity and Paediatric Nursing”
- Merenstein & Gardner-“Handbook of neonatal intensive care”
- Mcmillan,Fergin et al;-“ Oski’s Paediatrics-Principle & practice”
- Marlow Dorothy -“Textbook of Paediatric Nursing”
- Parthasarthy et al- “IAP Textbook of Paediatrics”
- Park’s “Text book of Preventive and Social medicine”
- Roberts KD Edwards JM- “Paediatric Intensive Care”
- Richard Polin-“Pediatric Secrets”
- Selekman- “Pediatric Nursing”
- Singh Meherban; “Care of Newborn”
- Singh Meherban; “Drugs Used in Children”
- Slota; “Core curriculum for Paediatric Critical Care Nursing”
- Speer; “Pediatric Care planning”
- Vidhyasagar & Sarnaik; “Neonatal & Paediatric Intensive Care”
- Wagle CS; “Short Text Book of Paediatrics” Vohra Book Centre,
- Whaley & Wong; “Nursing care of Infants and Children”
- Whaley, Lucilla F Donna L; “Essentials of Pediatric Nursing”
- Udani RH; “Neonatal Resuscitation”