Faculty	Nursing and Midwifery
Educational Level & Major	Master's Degree in Neonatal Intensive Care Nursing
Course Name	**Advanced management and care of infants (3)**
Credits	2
Unit Type	Theoretical
Prerequisite	Advanced management and care of infants (2)
Class Schedule	Online and in present
Location	
Number of Students	4 Course
Coordinator	Dr. Mona- Alinejad
Instructors (Alphabetical)	Dr. Mona Alinejad, Dr. Mahnaz Shoghi and Dr zahra Jafary

Course Description:
Familiarization with neonatal physiology, anatomy, and pathophysiology of various systems; identification of common neonatal diseases related to each system; ability to care for neonates with gastrointestinal, renal, endocrine, metabolic, and sexual differentiation disorders; pre- and post-operative care.

Main Goals/Core Competencies:
Familiarity with common gastrointestinal, endocrine, renal, metabolic, and sexual differentiation disorders.

Specific Objectives/Sub-competencies:
Upon completion of this course, the learner is expected to:

- Describe the physiology, anatomy, and development of the gastrointestinal system during fetal and neonatal periods.
- Describe the clinical assessment of the neonatal gastrointestinal system.
- Recognize types of gastrointestinal obstruction and describe their symptoms in the neonatal period.
- Describe the management of gastroesophageal reflux, necrotizing enterocolitis, and short bowel syndrome.
- Describe the management of abdominal wall defects (omphalocele, gastroschisis) and diaphragmatic hernia.
- Discuss common neonatal gastrointestinal problems requiring surgery and explain nursing care for these neonates.
- Describe neonatal hyperbilirubinemia, including symptoms, management, and nursing care.

- List common endocrine and metabolic diseases in the neonatal period.
-
- Describe the management of common neonatal endocrine and metabolic diseases and principles of nursing care.
- List disorders of sexual differentiation and their types in the neonatal period.
- Describe common diseases and anomalies of the urinary and genital systems in the neonatal period.
- Describe common urinary and genital anomalies requiring surgery in the neonatal period.
- Explain nursing care for neonates with common urinary and genital diseases and anomalies.
- Explain nursing care for a neonate undergoing circumcision.

Teaching Methods: Lectures, planned lectures, Q&A, group discussions, Problem-Based Learning (PBL), Team-Based Learning (TBL), others as specified Student Duties: Regular **attendance:** active participation Educational Aids: Whiteboard, Online Rooms, slide projector **Evaluation & Grading:** Attendance & participation: 2 point - Final exam: 18 points Exam **Types:** Descriptive, short answer, multiple choice, matching, true/false, others

References:

- Verklan, M.T., Walden, M. and Forest, S. eds., 2020. Core curriculum for neonatal intensive care nursing e-book. Elsevier Health Sciences.
- Fanaroff, A.A. and Fanaroff, J.M., 2019. Klaus and Fanaroff's Care of the High-Risk Neonate E-Book. Elsevier Health Sciences.
- Goldsmith, J.P. and Karotkin, E.H., 2003. Introduction to assisted ventilation. Assisted Ventilation of the Neonate, ed, 4, pp.1-14.
- Hockenberry, M.J. and Wilson, D., 2018. Wong's nursing care of infants and children-E-book. Elsevier Health Sciences.

Weekly Schedule & Topics	Instructor
1- Course introduction and overview of advanced neonatal management and care (3); Review of neonatal GI anatomy and physiology; Clinical assessment of the neonatal GI system	**Dr. Alinejad**
2- Abdominal wall defects (omphalocele, gastroschisis), diaphragmatic hernia (physiology, pathophysiology, symptoms, assessment, treatment); Nursing care of the neonate requiring abdominal surgery	**Dr. Shogi**
3- Pyloric stenosis, duodenal atresia, jejunal and ileal atresia, meconium ileus (physiology, pathophysiology, symptoms, assessment, treatment)	**Dr. Shogi**
4- Esophageal atresia and tracheoesophageal fistula, Hirschsprung disease, imperforate anus (physiology, pathophysiology, symptoms, assessment, treatment); Nursing care of the neonate requiring thoracic surgery	**Dr. Shogi**
5- Gastroesophageal reflux, necrotizing enterocolitis, short bowel syndrome (physiology, pathophysiology, symptoms, assessment, treatment)	**Dr. Shogi**
6- Hyperbilirubinemia (physiology, pathophysiology, symptoms, assessment, treatment); Assessment and management of neonatal hyperbilirubinemia, phototherapy, exchange transfusion	**Dr. Jafary**
7- Endocrine physiology and pathophysiology; Neonatal screening, clinical assessment of the neonatal endocrine system	**Dr. Alinejad**
8- Thyroid disorders (hypothyroidism, hyperthyroidism) in the neonatal period (physiology, pathophysiology, symptoms, assessment, treatment); Nursing care of the neonate with thyroid disorders	**Dr. Alinejad**
9- Adrenal and pancreatic disorders (physiology, pathophysiology, symptoms, treatment); Nursing care of the neonate with adrenal and pancreatic disorders	**Dr. Alinejad**
10- Disorders of sexual differentiation in the neonatal period (physiology, pathophysiology, symptoms, assessment, treatment); Nursing care of the neonate with disorders of sexual differentiation	**Dr. Alinejad**
11- Common metabolic diseases in the neonatal period (physiology, pathophysiology, symptoms, assessment, treatment); Nursing care of the neonate with metabolic diseases	**Dr. Alinejad**
12- Renal physiology, anatomy, and pathophysiology in the neonatal period; Clinical assessment of the neonatal renal system	**Dr. Alinejad**
13- Acute renal failure, renal vein thrombosis (physiology, pathophysiology, symptoms, assessment, treatment); Nursing care of the neonate with acute renal failure	**Dr. Jafary**
14- Hydronephrosis, common renal surgeries in the neonatal period (physiology, pathophysiology, symptoms, assessment, treatment); Nursing care of the neonate requiring renal surgery	**Dr. Jafary**
15- Anomalies of the penile and genital tract (physiology, pathophysiology, symptoms, assessment, treatment); Nursing care of the neonate requiring genitourinary surgery	**Dr. Jafary**
16- Neonatal circumcision; Post-circumcision nursing care in the neonatal period	**Dr. Alinejad**