Faculty	Nursing and Midwifery
Educational Level & Major	Master's Degree in Neonatal Intensive Care Nursing
Course Name	**Advanced management and care of infants (2)**
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 the physiology and anatomy of the neonatal systems under discussion, understanding the pathophysiology of hematologic, neuromuscular, skin, sensory, genetic, immune, and infectious diseases, pre- and post-operative care for common surgical procedures, and care of neonates with hematologic, neuromuscular, skin, infectious, genetic, and immune disorders.

Main Goals/Core Competencies:
Familiarity with diseases of the blood, nervous system, skin, immunity, infection, genetics, and their care principles.

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

- Familiarity with blood and blood disorders
- Development of blood cells
- Interpretation of peripheral blood smear
- Care of the neonate with bleeding disorders
- Thrombocytopenia, Polycythemia, Hereditary bleeding disorders
- Care of the neonate requiring blood transfusion and blood products
- Administration of blood and blood products, Administration of biologic agents
- Care of the neonate with hematologic problems
- Anemia, Care of the neonate with neurological disorders
- Neurologic assessment, Common neurologic diseases
- Neural tube defects
- Hypoxic-ischemic encephalopathy, Seizures, Intracranial hemorrhage
- Microcephaly and hydrocephalus

- Care of the neonate with genetic disorders
- Approach to parents and anomalies
- Neonatal skin care, Skin assessment, Skin care, Maintaining skin integrity
- Common skin lesions and care of the neonate with skin lesions
- Care of the neonate with hearing and visual disorders
- Retinopathy, retinoblastoma
- Hearing loss, newborn hearing screening
- Post-discharge follow-up
- Care of the neonate with immune and infectious disorders, Review of immunology physiology and pathophysiology

- Describe the management of common cardiac arrhythmias in the neonatal period.
- Explain the principles of using a cardiac defibrillator in the neonatal period.
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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 plan overview and introduction to advanced management and care	**Dr. Alinejad**
2-Neonatal neurologic assessment, clinical neurological examination, neural tube defects	**Dr. Alinejad**
3- Hypoxic-ischemic encephalopathy, therapeutic hypothermia in neonates, seizures	**Dr. Alinejad**
4- Neonatal meningitis, neonatal hypotonia	**Dr. Alinejad**
5- Types of intracranial hemorrhage in neonates, microcephaly and hydrocephalus	**Dr. Alinejad**
6- Care of the neonate with genetic disorders, pathophysiology and common disorders	**Dr. Alinejad**
7- Introduction to blood and bleeding disorders in neonates (DIC, thrombocytopenia)	**Dr. Shoghi**
8- Polycythemia, hereditary bleeding disorders, CBC interpretation in neonates	**Dr. Shoghi**
9- Care of the neonate requiring blood transfusion and blood products, care of neonate with hematologic problems and anemia	**Dr. Shoghi**
10-Neonatal skin (pathophysiology and physiology), importance of skin in preterm infants, neonatal skin assessment	**Dr. Shoghi**
11- Skin care, maintaining skin health, common skin lesions in neonates and care of affected neonates	**Dr. Shoghi**
12- Care of neonates with hearing and visual disorders (anatomy, physiology, pathophysiology, neonatal assessment, newborn hearing screening)	**Dr. Shoghi**
13- Retinopathy of prematurity, retinoblastoma	**Dr. Shoghi**
14- Principles of care for neonates with hearing and visual disorders, hearing loss, post-birth hearing assessment, post-discharge follow-up	**Dr. Jafary**
15- Care of neonates with infectious and immune disorders (common neonatal infections, sepsis)	**Dr. Jafary**
16- Care of neonates with infectious and immune disorders (common neonatal infections, sepsis)	**Dr. Jafary**