Course Description:

In this course the student will study advanced concepts of acute care, monitoring and management as applied to the neonatal and pediatric client.

Text, References and Supplies:


Student Learning Outcomes:

Upon successful completion of the course the student will:

1. Describe the embryologic development of the cardiopulmonary system
2. Describe postnatal cardiopulmonary development
3. Discuss assessment of fetal growth and development
4. Identify stages of labor and delivery
5. Describe abnormal labor and delivery
6. Explain adaptation to extra-uterine life
7. Explain techniques of resuscitation and stabilization
8. Discuss anatomic & physiologic differences between the adult and the infant
9. Explain PARA
10. Differentiate between Dubowitz and Ballard gestational age assessments
11. Discuss neonatal physical assessment
12. Discuss neonatal neurologic examination
13. Discuss history of the pediatric patient
14. Discuss the physical exam of the pediatric patient
15. Explain neonatal pulmonary function testing
16. Explain pediatric pulmonary function testing
17. Describe airway clearance techniques
18. Describe performance of CPT
19. Discuss pediatric humidity/aerosol delivery
20. Describe suctioning techniques
21. Explain neonatal/pediatric oxygen therapy
22. Discuss thermoregulation
23. Discuss developmental needs of the high-risk neonate
24. Discuss fluid and electrolyte balance in the newborn
25. Discuss neonatal jaundice
26. Discuss necrotizing enterocolitis (NEC)
27. Describe neonatal/pediatric pharmacology
28. Explain assessment of oxygenation
29. Explain assessment of ventilation
30. Discuss assessment of acid/base balance
31. Describe umbilical catheterization
32. Discuss neonatal lung diseases
33. Discuss causes of persistent perinatal illness in neonates
34. Discuss pediatric diseases requiring respiratory care
35. Explain CXR interpretation in neonatal/pediatric patients
36. Explain concepts of neonatal/pediatric mechanical ventilation
37. Discuss management of the patient-ventilator system
38. List common neonatal/pediatric ventilators
39. Discuss special procedures for neonatal/pediatric patients
40. Discuss special ventilator techniques for neonatal/pediatric patients
41. Describe perinatal transport
42. Describe perinatal home care
43. Explain care to the parents

Student Contributions, Responsibilities and Class Policies:

Each student will spend at least 6 hours per week preparing for class. Attendance is critical in this class. All classroom performance and behavior will be considered academic.

Evaluation of Students:

A minimum of (4) four tests will be given including a comprehensive final (unless otherwise designated by the instructor). The final exam will carry the same weight as any other exams. Test questions will come from lecture, reading assignments and homework assignments. Most if not all test questions will be objective in nature.

1. Tests. Weekly worksheets. 90%
2. Attendance, participation and attitude 10%

Total 100%

Course Schedule:

The class meets for 3 lecture hours. Twice weekly for (6) six weeks.

Americans with Disabilities Act (ADA):

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the Shep Grinnan as soon as possible. Mr. Grinnan’s office is located in the Scharbauer Student Center Building. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation.

Division Information: Health Sciences