



Wayne County Community College District

COURSE SYLLABUS

ANE 105

Basic and Advanced Principles for Anesthesia Technology

CREDIT HOURS: 3

CONTACT HOURS: 45

COURSE DESCRIPTION:

This course focuses on the basic as well as advanced aspects of Anesthesia Gas Machines and Anesthesia related equipment. The set-up and function of basic equipment for anesthesia care, anesthesia machine check out and types of anesthesia will be discussed. Students will learn about the various medical gas cylinders and pipelines used in the medical atmosphere. Hemodynamic and gas monitoring, intravenous lines and skin preparation will be covered. Transducer set up for various types of surgery. Students will also be exposed to transfusion medicine and preoperative blood management. Topics covered will also include scope of practice, occupational health, electrical safety, fire safety and will include the anesthesia workstation. The students will also learn about the severity of latex allergic patients and being a part of the Anesthesia Care.

PREREQUISITE: ANE 100, ALH 110, BIO 155

LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to:

1. Identify the types of medical gas cylinders and containers.
2. Describe the use of suction equipment and its maintenance.
3. Describe the principles related to the breathing system.
4. Understand the emotional considerations related to the surgical patient.
5. Identify the components of the breathing circuit.
6. Perform and understand the pre-op (FDA) machine check.
7. Moving the Anesthesia Gas Machine in and out of the OR for emergency procedures.
8. Set-up and function of basic equipment for anesthesia care.
9. Identify the various vaporizers used in anesthesia today.
10. Understand the hazards of the anesthesia gas delivery system.
11. Understand and prepare for latex allergic patients.
12. Patient Safety will be continued in the classroom and lab.
13. Intravenous lines and skin prep.
14. Identify methods of gas monitoring, and hemodynamic monitoring.
16. Demonstrate methods used in temperature monitoring.
17. Demonstrate the use of pulse oximetry and instrument cleaning and sterilization.
18. Demonstrate competency in equipment checkout and maintenance

ASSESSMENT METHODS:

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:

90%-100% = A
80%-89.9% = B
70%-79.9% = C
60%-69.9% = D
<60% = E