

ANESTHESIA TECHNOLOGY (ANE)

ANE 1100 Introduction to Anesthesia Technology

Credit Hours: 3

This course introduces students to the Anesthesia Technology field including the roles of the anesthesia technician and other members of the anesthesia and surgical teams, the levels of training available in Anesthesia Technology, basic patient care concepts, Health Insurance Portability and Accountability Act (HIPAA), and the roles of the American Society of Anesthesia Technicians and Technologists (ASSATT), the Joint Commission, and other regulatory bodies. Basic conflict resolution, anesthesia specific medical terminology, verbal and written communication in the operating room and recovery room, and ethical considerations (including patient rights to privacy) in human medicine will also be discussed.

ANE 1340 Anesthesia Technology Clinical Procedures

Credit Hours: 2

Prerequisites: ANEC 1210 and HSC 1149 - both courses with a grade of "C" or higher

This course integrates knowledge of anesthetic, surgical, and emergency pharmaceuticals with their clinical uses. Principles of proper pharmaceutical storage, inventory, and labeling, as well as pharmaceutical regulatory compliance will be emphasized. Stocking and maintenance of the drug/crash cart will be discussed. Calculations and techniques for pharmaceutical administration (including constant rate infusions), parenteral fluid therapy, and blood transfusion will be the focus.

ANE 1941 Anesthesia Technology Clinical 1

Credit Hours: 3

Prerequisites: ANEC 1210 with a grade of "C" or higher

This first of three clinical experiences integrates didactic knowledge from lecture and psychomotor skills from the laboratory into the clinical operating room setting. The focus will be on pediatric, obstetric, and outpatient anesthesia. Equipment preparation, patient plan of care, patient monitoring, and thermal support will be emphasized along with leadership skills.

ANE 2180 Physical Principles of Anesthesia

Credit Hours: 3

This course introduces concepts related to respiratory physiology and inhalant anesthesia including physical characteristics of anesthetic gases, pulmonary mechanics, ventilation control, and pulmonary function testing. Gas cylinder safety will be emphasized. Principles applicable to the use of electrocautery and lasers in the operating room will also be introduced including safety concerns and mitigation.

ANE 2390 Electrocardiographic Analysis

Credit Hours: 2

Prerequisites: ANEC 1210 and BSCC 2094 - both courses with a grade of "C" or higher

This course is an in-depth review of cardiac anatomy and physiology including the intrinsic conduction system and maintenance of blood pressure. The relationship between the intrinsic conduction system and the electrocardiographic waveform will be established. Pharmacological, neurological, respiratory, and thermal effects on cardiac output and electrical activity will be discussed. Interpretation of the 12-lead electrocardiogram (ECG) reading in the normal, abnormal, and anesthetized patient will be performed including arrhythmias and artifact.

ANE 2942 Anesthesia Technology Clinical 2

Credit Hours: 4

Prerequisites: ANE 1941 with a grade of "C" or higher

This second clinical experience of three integrates more advanced didactic knowledge from lecture and psychomotor skills from the laboratory into the clinical setting. The clinical focus will be on all anesthetic procedures including cardiac and trauma. Equipment preparation, patient plan of care, drug cart set-up and maintenance, patient monitoring, and pain control will be emphasized.

ANE 2943 Anesthesia Technology Clinical 3

Credit Hours: 4

Prerequisites: ANE 2942 with a grade of "C" or higher

This third clinical experience of three is the capstone course. Students are expected to perform all of the functions of an entry level anesthesia technician under direct supervision for a variety of anesthetic procedures including neurosurgery. Collaboration with the perioperative and anesthesia teams will be emphasized.