

Anesthesia

Courses

ANES 6611L Advanced Health Assessment Lab: 1 semester hour.

Acquisition and application of advanced health assessment skills in diverse populations. Skills include health history, physical assessment and health promotion. Graded S/U COREQ: NURS 6611

ANES 7710 Foundations in Anesthesia: 3 semester hours.

This course provides a comprehensive introduction to the practice of anesthesia, with a focused emphasis on preoperative assessment and the foundational principles of anesthetic management.

ANES 7711 Anesthesia Principles I: 4 semester hours.

This course introduces students to fundamental anesthesia concepts on the topics of airway management, advanced airway techniques, fluid management and ERAS protocols. It progresses into more advanced anesthetic topics and surgical procedures of hepatobiliary, laparoscopic, and robotic surgeries, endocrine and respiratory anesthesia, and management of genitourinary, gynecologic, thoracic, and outpatient procedures. The course also covers evidence-based concepts in post-anesthesia recovery and pain management.

ANES 7711L Advanced Simulation for Anesthesia Principles I: 1 semester hour.

Application of content in Principles I using high-fidelity simulation, including simulated delivery of general anesthesia and the demonstration of multiple anesthesia procedural skills. COREQ: ANES 7711

ANES 7712 Anesthesia Principles II: 4 semester hours.

An in-depth study of anesthesia principles and management for musculoskeletal, cardiovascular, thoracic, and vascular surgeries. Emphasizing advanced techniques in regional and neuraxial anesthesia, students will learn to navigate the complexities of cardiac and vascular procedures, including the use of TEE, POCUS, and radiography. The course prepares students to develop and implement comprehensive anesthetic plans, ensuring optimal patient outcomes in high-acuity surgical settings. PREREQ: ANES 7711 COREQ: 7712L

ANES 7712L Advanced Simulation for Anesthesia Principles II: 1 semester hour.

Application of topics discussed in Anesthesia Principles II using high-fidelity simulation; to include hemodynamic monitoring and management of a simulated patient as well as the synthesis of multiple anesthesia procedural skills needed for the placement of invasive monitoring in and out of the OR. PREREQ: ANES 7711, ANES 7711L. COREQ: ANES 7712

ANES 7713 Anesthesia Principles III: 4 semester hours.

Further exploration of advanced concepts and procedures and specialty populations across the lifespan. Examples of populations to be explored include neonatal, pediatric, obstetric, and geriatric. Students will also examine the mechanisms of pain and current treatment variations for acute and chronic pain. PREREQ: ANES 7712

ANES 7714 Crisis & Trauma Management, Advanced Concepts in Anesthesia: 3 semester hours.

Using advanced anesthesia simulation scenarios, students experience and respond to crisis scenarios. Residents will enhance their patient assessment skills which are needed to detect and prevent a potential crisis from occurring and Residents will demonstrate the skills necessary to manage complex problems when they do arise. There is an emphasis on team leadership with the CRNA as the team leader. Evidence based team principles for best outcomes are applied in simulation scenarios which include principles in trauma resuscitation and pharmacologic and clinical management of the trauma patient.

ANES 7720 Advanced Pathologic Aspects of Disease: 4 semester hours.

The advanced pathophysiology course for Nurse Anesthesiology residents provides a deep dive into the pathological mechanisms that influence anesthesia practice. Residents will explore how disease states impact anesthesia management, focusing on the cardiovascular, respiratory, renal, neurological, endocrine, and hematological systems. Through a combination of lectures, discussions, exams, and interactive clinical correlation sessions, residents will enhance their ability to assess, manage, and optimize patient care across the perioperative period.

ANES 7721 Advanced Physiology & Anatomy for Anesthesia I: 4 semester hours.

Examines normal human physiology, anatomy and pathophysiology using a body-systems approach, with emphasis on the interrelationships between form and function at the gross and cellular levels of organization. Includes analysis of cellular structure and function as well as the individual components of body systems. Emphasis is on the peripheral vascular, cardiovascular and pulmonary systems and the effects of anesthesia on those systems.

ANES 7722 Advanced Physiology & Anatomy for Anesthesia II: 4 semester hours.

A continuation of Advanced Physiology I- by providing a more in depth study of cardiac and pulmonary physiology. Renal, gastrointestinal, blood and circulatory systems are covered in the classroom as well as in the anatomy and physiology lab. Emphasis is placed on learning the physiologic effects of anesthetics on bodily systems.

ANES 7723 Applied Anatomy Skills & Simulation Lab: 3 semester hours.

Use of the Cadaver Lab for hands-on experience with Intubation, spinal and epidural anesthesia as well as ultrasound Guided Nerve Blocks for Upper Extremity, Lower Extremity and TAP blocks. Identification of the various nerve groups associated with each of the major nerve blocks which the CRNA may be expected to perform clinically. Point of care ultrasound is also covered for assessment of potential complications and aiding in anesthetic management of complex patients.

ANES 7731 Advanced Pharmacology for Anesthesia I: 3 semester hours.

Anesthesia Pharmacology I provides an in-depth and comprehensive understanding of the pharmacological agents used in anesthesia practice. This course lays the foundation for the safe and effective administration of anesthesia drugs. Mechanisms of action, interactions, and potential adverse effects of modern anesthetic drugs are also covered.

ANES 7732 Advanced Pharmacology for Anesthesia II: 3 semester hours.

Anesthesia Pharmacology II provides nurse anesthesia students with an in-depth understanding of advanced pharmacological principles and concepts related to anesthesia practice. This course builds upon the foundation of knowledge gained in Pharmacology for Anesthesia I. Mechanism of action, interactions, and adverse drug effects will be covered throughout the course. PREREQ: ANES 7731

ANES 7740 Intro to Clinical Anesthesia: 1 semester hour.

Introduces clinical anesthesia care with supervised participation in actual anesthetic administration. Theoretical concepts and techniques and application in anesthetic management toward the achievement of the terminal objectives for competency in entry-level anesthesia practice. Graded as satisfactory/unsatisfactory. PREREQ: ANES 7712, ANES 7732

ANES 7741 Clinical Practicum for Anesthesia Practice I: 3 semester hours.

This is the first of six clinical Practicums which provide experience in delivering safe anesthesia care. A nurse anesthesia resident (NAR) is supervised by a CRNA or physician anesthesiologist to learn anesthesia responsibilities focused on a written anesthetic plan which incorporates the patient's health record and physical exam. In this Practicum, the nurse anesthesia resident is expected to demonstrate a novice level of skill in intraoperative anesthetic management. PREREQ: ANES 7712, ANES 7712L, ANES 7722, ANES 7732

ANES 7742 Clinical Practicum for Anesthesia Practice II: 4 semester hours.

Practicum II will focus on completing a comprehensive anesthetic set-up, revising the anesthetic plan if needed due to presenting patient conditions, recognizing inadequate mask ventilation, proper sequence for administration of medications during induction, ability to adequately secure an airway, ability to accurately document on the anesthesia record, the ability to identify intraoperative issues and institute appropriate treatment, and the ability to develop an anesthesia skill set in emergence without the direct assistance of a preceptor. Nurse anesthesia residents may begin cardiac and obstetric clinical rotations during this clinical practicum as well as be expected to participate in the preparation, insertion, and initial management of invasive monitoring techniques. Graded S/U. PREREQ: ANES 7741, ANES 7713

ANES 7743 Clinical Practicum for Anesthesia Practice III: 4 semester hours.

In Practicum III the nurse anesthesia resident will be expected to demonstrate intermediate level proficiency in the provision of a standard anesthetic and will focus on revising the anesthetic plan after the patient interview and physical assessment, further developing regional anesthesia techniques and induction sequence techniques, integrating advanced airway skill sets into practice, instituting appropriate intraoperative treatments with little need for direction, improving emergence skills sets, and decision making and problem solving in anesthesia practice. Graded S/U. PREREQ: ANES 7742

ANES 7744 Clinical Practicum for Anesthesia Practice IV: 4 semester hours.

In this intermediate clinical Practicum, nurse anesthesia residents are expected to build upon the foundational skills acquired in previous courses, moving toward greater independence and proficiency in anesthesia practice. There will be a focus on refining the ability to independently perform basic anesthetic procedures with minimal supervision, enhancing efficiency, and developing a distinct professional approach that reflects growing competence. Graded S/U/ PREREQ: ANES 7743

ANES 7745 Clinical Practicum for Anesthesia Practice V: 4 semester hours.

In clinical Practicum V the nurse anesthesia resident is expected to demonstrate advanced proficiency in their anesthesia practice as they transition toward greater autonomy and leadership within the clinical setting. The focus will be on independently developing and executing anesthetic plans after patient interviews, physical assessments, and thorough consideration of surgical, ethical, and cultural factors. This Practicum emphasizes mastering induction sequences, advanced airway management, intraoperative patient management, and emergence skills with minimal supervision. Graded S/U. PREREQ: ANES 7744

ANES 7746 Clinical Practicum for Anesthesia Practice VI: 4 semester hours.

Clinical Practicum for Anesthesia Practice VI represents the culmination of the nurse anesthesia resident's clinical education, with a focus on achieving mastery in all aspects of anesthesia delivery and patient care. NARs are expected to independently develop and execute anesthetic plans, mastering the comprehensive management of patients from the preoperative through the postoperative phases. Graded S/U. PREREQ: ANES 7745

ANES 7750 Human Factors, Patient Safety, Ethics & Diversity in Anesthesia: 3 semester hours.

Explores the theoretical and evidentiary basis of human error, patient safety and quality assurance/improvement in anesthesia care. Introduces a systems approach to error investigation and analysis. Integrates concepts of teamwork, crisis management, simulation and monitoring systems in anesthesia practice. Examination of ethics and diversity and the role played in patient safety.

ANES 7760 Business, Leadership & Health Policy for Anesthesia: 3 semester hours.

Comprehensive study of the business aspects of anesthesia practice, including models of employment, practice, and billing. Participate in advocacy opportunities that enhance the community and the impact of healthcare in our community. This course will also focus on the role of the nurse leader in policy development and professional practice. The leadership roles in nursing to promote health policy initiatives in facilitating change are emphasized.

ANES 7771 Scholarly Project Design: 2 semester hours.

The Scholarly Project is the culminating experience of the DNAP program. Students investigate a problem relevant to the practice of anesthesia. The project may have a clinical, administrative, policy or educational focus. Students complete a comprehensive review of current evidence addressing the problem and develop a project proposal using an appropriate design to address the identified problem. Graded S/U

ANES 7772 Scholarly Project Development: 3 semester hours.

The Scholarly Project is the culminating experience of the DNAP program. Students investigate a problem relevant to the practice of anesthesia. The project may have a clinical, administrative or educational focus. Students build upon the review of the literature and project design, adding the methods and procedures for addressing the identified problem relevant to the practice of anesthesia. Graded S/U. PREREQ: ANES 7771

ANES 7773 Scholarly Project Implementation: 3 semester hours.

The Scholarly Project is the culminating experience of the DNAP program. Students investigate a problem relevant to the practice of anesthesia. The project may have a clinical, administrative or educational focus. For project implementation, the student must carry out the proposed project which they designed and developed. The student must articulate and demonstrate how the project may improve the local or regional practice of anesthesia. Graded S/U. PREREQ: ANES 7772

ANES 7781 Anesthesia Board Prep I: 2 semester hours.

Students work through prepared review materials covering all topics listed by the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) in preparation to take the National Certification Exam (NCE). The course is designed to identify student specific knowledge gaps and to review topics that were discussed throughout the program. The class culminates with students taking the NBCRNAs Self-Evaluation Exam (SEE). PREEQ: ANES 7744

ANES 7782 Anesthesia Board Prep II: 2 semester hours.

Students work through prepared review materials covering all topics listed by the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) in preparation to take the National Certification Exam (NCE). The course is designed to identify student specific knowledge gaps and to review topics that were discussed throughout the program. The class culminates with students taking the NBCRNAs Self-Evaluation Exam (SEE). PREREQ: ANES 7781