

# Nurse Anesthesia (RNA)

Class of 2017

## Specialty Specific Courses

**Course Number:** RNA602

**Course Title:** Applied Biochemistry for Nurse Anesthetists

**Credits:** 3 credits

**Course Description:** This course is intended to provide the students with an understanding of the biochemical basis of physiological processes including abnormal derangements. Students are expected to apply the biochemical principles to nurse anesthesia practice. Major topics covered include: 1) structures of the nucleic acids, synthesis of DNA, RNA and proteins; 2) protein structure and function, enzyme, pH and pKa, acids, bases, and buffers; 3) common metabolic pathways of carbohydrates, lipids, and amino acids; and 4) special topics including medical genetics and molecular endocrinology. Lectures are supplemented by case studies and clinical correlate presentations related to anesthesia.

**Course Number:** RNA605

**Course Title:** The Principles of Anesthesia, Pharmacology & Coexisting Disease in Clinical Anesthesia Practice I

**Credits:** 4 credits

**Course Description:** This core integrates the basic principles of anesthesia with pharmacology, technology and coexisting disease. This course is designed to develop and analyze anesthesia specific content and relate it to the pharmacology I course and pathophysiology I course taught concurrently during the semester. Topic areas will include: anesthesia equipment and machine, cardiopulmonary disease and pharmacology, pharmacology of induction and inhaled anesthetics, airway management and preoperative/anesthetic planning.

**Course Number:** RNA606

**Course Title:** The Principles of Anesthesia, Pharmacology & Coexisting Disease in Clinical Anesthesia Practice II

**Credits:** 5

**Course Description:** This course sequentially builds upon the content taught in the Principle of Anesthesia Practice I course. This course will develop the basic content previously covered and apply it to advanced topics in anesthesia, pharmacology and disease. Students will apply this knowledge and develop the skills to create anesthetic care plans for a variety of specialty populations and surgical procedures in hospital and austere environments.

**Course Number:** RNA607

**Course Title:** The Principles of Regional Anesthesia and Vascular Access

**Credits:** 1

**Course Description:** This course integrates basic and advanced principles of anesthesia with the intent to expose the student to advanced concepts of regional anesthesia and vascular access for

clinical practice. This course will integrate anesthesia relevant procedures and therapy with anatomy, physiology, acute and chronic pain management. Topic areas will include: ultrasound and nerve stimulation technology, nerve and vascular anatomy of peripheral and neuraxial structures and hands on practicum on cadaver, human, and simulation devices.

**Course Number:** RNA608

**Course Title:** The Principles of Anesthesia, Pharmacology & Coexisting Disease in Clinical Anesthesia Practice III

**Credits:** 3

**Course Description:** This course sequentially builds upon the content taught in the Principles of Anesthesia I & II courses. This course integrates the basic and advanced principles of anesthesia and pharmacology and synthesizes these concepts with advanced surgical procedures and complex coexisting disease states.

**Course Number:** RNA801

**Course Title:** DNP-Clinical Practicum and Seminar for Nurse Anesthesia Practice I

**Credits:** 1

**Course Description:** This course provides the foundation for the art and science of nurse anesthesia. The beginning clinical practicum will introduce the student to the anesthetic equipment and operating room environment. Basic, guided instruction is provided to begin to integrate the didactic principles provided in Patient Assessment, Basic and Advanced Principles of Anesthesia, Co-existing Disease and Clinical Pharmacology into the clinical practice settings. A targeted review of airway management and induction/emergence sequences will be integrated into the course through a simulation lab experience. This course is designed to give the student practical information regarding the administration of safe anesthesia with a significant amount of preceptor intervention.

**Course Number:** RNA802

**Course Title:** DNP-Clinical Practicum and Seminar for Nurse Anesthesia Practice II

**Credits:** 8

**Course Description:** This course is a clinical course and continues providing the foundation for the art and science of nurse anesthesia with a significant amount of preceptor intervention. This clinical practicum will begin with a review of the basic clinical anesthesia topics presented in Phase I and continue the introduction of the novice student to anesthetic equipment and the operating room environment. This course is designed to give the student practical information regarding the administration of safe anesthesia with a significant amount of preceptor intervention. Progressive, guided instruction will be provided for the clinical management of patients undergoing all forms of anesthesia.

**Course Number:** RNA803

**Course Title:** DNP-Clinical Practicum and Seminar for Nurse Anesthesia Practice III

**Credits:** 8

**Course Description:** This clinical course focuses on individual in-depth study of basic science, basic and advanced clinical nurse anesthesia principles as well as a continued review of equipment/monitoring and professional aspects of the career. The student learns to manage more complex patients with an emphasis on advanced monitoring techniques, use of pharmacological agents, and handling higher stress situations. Students develop and utilize practical clinical

applications of nurse anesthesia theory. They are individually assigned to specialty areas and formally evaluated at the end of each rotation. Case presentations and group discussion designed to assist the student in conceptualizing, analyzing, and evaluating various nurse anesthesia strategies are included.

**Course Number:** RNA804

**Course Title:** DNP-Clinical Practicum and Seminar for Nurse Anesthesia Practice IV

**Credits:** 5

**Course Description:** This clinical course is a continuation of advanced clinical nurse anesthesia administration in which the student will continue to progress toward greater independent practice. Emphasis is on management of advanced anesthetic principles. The student learns to manage more complex patients with an emphasis on advanced monitoring techniques, use of pharmacological agents, and handling higher stress situations. Students develop and utilize practical clinical applications of nurse anesthesia theory. Students continue out rotations in specialty areas. This semester will include a Professional Aspects/Wellness Focused Seminar. This is primarily a clinical semester with four credits reflected in the Clinical area and one as a seminar. The deliverable for this semester include: a project presentation and executive summary paper that will be a part of the student's DNP portfolio, two simulations, and two discussion board sessions.

**Course Number:** RNA805

**Course Title:** DNP-Clinical Practicum and Seminar for Nurse Anesthesia Practice V

**Credits:** 8

**Course Description:** This clinical course is the continuation of advanced nurse anesthesia administration. In this semester the students synthesize and integrate all aspects of anesthesia care. Students should be preparing for entry into practice. The didactic review for this semester will focus on Cardiac/Neurology/Renal and Trauma Anesthesia. Students develop and utilize practical clinical applications of nurse anesthesia theory. Students continue out rotations in specialty areas and are formally evaluated at the end of each rotation. This is primarily a clinical semester with seven credits reflected in the clinical area and one as a seminar. The deliverables for this semester will include: a written case report that will be a part of the student's DNP portfolio, two simulations, and two discussion board sessions.

**Course Number:** RNA806

**Course Title:** DNP-Clinical Practicum and Seminar for Nurse Anesthesia Practice VI

**Credits:** 8

**Course Description:** This clinical course is the continuation of advanced nurse anesthesia clinical administration. In this semester the students complete the synthesis and integration of all aspects of anesthesia care. Students are prepared to transit from student to independent practitioner status. The didactic review for the semester will focus on trauma, resuscitation, emergency anesthesia and critical care. The student will also be focused on preparing for the National Board Certification Exam. Students continue out rotations in specialty areas and are formally evaluated at the end of each rotation. This is the final clinical semester with seven credits reflected in the clinical area and one as a seminar. The deliverables for this semester will include: a case report presentation that will be a part of the student's DNP portfolio, an oral board, two simulations and two discussion board sessions.