I. **Procedure: Courses**

**Effective Date:** 3/1/2018  
**Annual Review:** 3/1/2019

The MSNA curriculum will provide instruction consistent with the standards of the Council on Accreditation of Nurse Anesthesia Educational Programs (COA). The actual Course Numbers listed below may be subject to change. The curriculum is comprised of the following courses:

**NGR 6002 Advanced Health Assessment Across the Lifespan** - This course includes the history, physical, and psychological assessment of signs and symptoms, pathophysiologic changes, and psychosocial variations of a patient as they relate to preoperative assessment, intraoperative management, and postoperative management of patients receiving anesthesia. This course will provide students with the cognitive and psychomotor skills necessary to perform advanced health assessment for patients, across the lifespan, undergoing anesthesia.

**NGR 6404, 6405, 6406 Anatomy, Physiology & Pathophysiology for Anesthesia I, II, III** - These courses present, analyze/evaluate anatomy, physiology, and pathophysiology of the cardiovascular, neurological, respiratory, hepatic, renal, hematologic, immunologic, and endocrine systems. These courses also examine fluid and electrolyte balance, acid-base status, abnormalities and management in the acute and chronically ill patient. This course also explores the anesthesia techniques of neuraxial and regional anesthesia.

**NGR 6460, 6461 Pharmacology for Nurse Anesthesia I, II** - These courses present, analyze/evaluate general principles of drug action, signs and stages of anesthesia, uptake and distribution of inhalation agents, and Pharmacology of specific drug classes: inhalation agents, anesthesia induction drugs, opiate agonist/antagonist, non-narcotic agents, neuromuscular blocking drugs, local anesthetics, autonomic drugs and cardiovascular drugs.

**NGR 6420 Principles of Anesthesia (3)** - This course presents, analyzes/evaluates principles relevant to the practice of anesthesia: history of Anesthesia, scope of anesthetic practice, documentation, preoperative patient evaluation and preparation, anesthesia technique, airway assessment and management, anesthesia delivery systems, positioning of the patient for anesthesia and surgery, effects of coexisting disease on anesthetic administration, physiologic response to anesthesia, intraoperative anesthetic management, anesthesia administration in locations outside the operating room, postoperative patient complications, postoperative patient management.

**NGR 6424 Advanced Principles of Anesthesia** - This course presents, analyzes/evaluates principles relevant to acute care and the practice of anesthesia for the following specific populations: orthopedic patients, trauma patients, burn patients, ENT patients, spinal cord injury patients, patients with neuromuscular disease, chronic pain patients, patients being monitored with evoked potentials, patients
undergoing organ transplant, obstetrics, pediatrics, and patients with coagulopathies. This course also explores the anesthesia techniques of neuraxial and regional anesthesia.

NGR 6400 Chemistry, Biochemistry and Physics for Nurse Anesthesia – This course investigates the concepts and principles of chemistry, biochemistry and physics that are fundamental to anesthesia practice, medical equipment and operating room safety.

NGR 6492 Professional Aspects of Nurse Anesthesia – This course presents, analyzes/evaluates the nurse anesthesia profession in terms of professionalism, regulation, healthcare, environment, issues, politics, and practice challenges to include but not limited to adverse outcomes in anesthesia, cultural competency, conflict management, professional issues, legality, liability, informed consent, involvement in professional associations and addiction in anesthesia providers.

NGR 6803, 6809 Research and Evidence-Based Practice – This course prepares advanced practice nurse anesthetists who are proficient in ethical utilization and clinical application of research including problem identification and evaluation to provide high quality care and improve practice.

NGR 6929C Clinical Correlational Conferences – These courses provide the opportunity for analysis and evaluation of current anesthesia literature through student presentation and discussion and anesthesia related guest lectures.

NGR 6431L, 6432L, 6433L, 6434L, 6435L, 6436L, 6437L Anesthesia Practicum I, II, III, IV, V, VI, VII – A series of seven courses that allow clinical application of principles of nurse anesthesia. Students will be precepted in the perioperative clinical site. Experiences include application of skills specific to the role of nurse anesthetists. Acquired foundations are applied to multiple patient populations: the routine surgical patient, the surgical patient with co-existing disease, the surgical patient in various life stages, the surgical patient with procedure-specific needs and anesthesia for subspecialty populations. Important concepts include anatomical, physiological, pathophysiological and pharmacological principles. Analysis, integration and utilization of research to improve practice are emphasized.

NGR 6491, 6495, 6496 Anesthesia Practice Comprehensive I, II, III – This course is designed to measure the knowledge base and clinical competency of the nurse anesthesia student. In a series of three similar courses, the opportunity for students to demonstrate increased mastery of didactic and clinical knowledge and its appropriate application in patient management will be reviewed and examined.