The practice of anesthesia is the process used to render a patient insensitive to pain and emotional stress during surgical, obstetrical, or some diagnostic procedures. Nurse anesthesia is an expanded role which implements both nursing and medical functions to a wide patient population for surgical and procedural interventions. The required education builds upon previous nursing experiences by incorporating rigorous scientific knowledge, and applied clinical practices which include general, regional, and local anesthetics, and advanced technology in the delivery of quality and safe anesthesia. The practice of nurse anesthesia includes, but is not limited to: pre- and post-operative assessment, planning, implementing, and managing total and safe anesthesia care to all patients regardless of age level and/or the acuity of circumstance. The nurse anesthetist works with a team of health care providers and in collaboration with anesthesiologist or other fully-privileged physicians or dentists. Nurse anesthetists are also members on the trauma and cardiopulmonary resuscitation teams as airway experts to secure and manage difficult airway related problems which may occur in various clinical settings.

**Accreditation:** The program is fully accredited by the Council on Accreditation (COA) of Nurse Anesthesia Educational Programs. Projected future for the program is to transition to a Doctor of Nurse Anesthesia Practice.

**HAGLUND, VALDOR L.:** M.S., B.S., Wayne State University; Assistant Professor (Clinical)

**WALCZYK, MARY L.:** M.S., Wayne State University; B.S., Mercy College of Detroit; Assistant Professor (Clinical)

**WORTH, PRUDENTIA: Ph.D., M.Ed., B.S., Wayne State University; Assistant Professor (Clinical)**

- [Anesthesia (M.S.)](http://bulletins.wayne.edu/graduate/college-pharmacy-health-sciences/health-care-sciences/anesthesia-nurse/anesthesia-ms)
- [Pediatric Anesthesia (Graduate Certificate)](http://bulletins.wayne.edu/graduate/college-pharmacy-health-sciences/health-care-sciences/anesthesia-nurse/pediatric-anesthesia-graduate-certificate)

**AN 7010 Advanced Health Assessment and Clinical Diagnosis Cr. 3**
Advanced systematic focus on health assessment, anatomical and physical limitations, and impact on anesthesia practice. Offered Fall.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment is limited to students with a major in Nurse Anesthesia Practice.

**Course Material Fees:** $10

**AN 7020 Clinical Anesthesia Practicum II Cr. 2**
Continuation of AN 7010. Offered Winter.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**AN 7030 Clinical Anesthesia Practicum III Cr. 2**
Continuation of AN 7020. Offered Spring/Summer.

**Prerequisites:** AN 7020

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**AN 7040 Clinical Anesthesia Practicum IV Cr. 3**
Continuation of AN 7030. Offered Fall.

**Prerequisites:** AN 7030

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**AN 7050 Clinical Anesthesia Practicum V Cr. 3**
Continuation of AN 7040. Offered Winter.

**Prerequisites:** AN 7040

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**AN 7060 Clinical Anesthesia Practicum VI Cr. 2**
Continuation of AN 7050. Offered Spring/Summer.

**Prerequisites:** AN 7050

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

**AN 7070 Clinical Practicum I Cr. 2**
Outpatient anesthesia practice; focus on airway management. Offered Fall.

**Restriction(s):** Enrollment is limited to Graduate level students.

**AN 7080 Clinical Practicum VIII Cr. 3**
Clinical experiences at diverse clinical settings and varying levels of patient acuity. Offered Winter.

**Prerequisite:** AN 7070 with a minimum grade of C

**Restriction(s):** Enrollment is limited to students with a major in Nurse Anesthesia Practice.

**AN 7090 Clinical Practicum III Cr. 1**
Clinical experience with complex cardiac diseases requiring thoracic and cardiopulmonary bypass. Offered Spring/Summer.

**Restriction(s):** Enrollment is limited to Graduate level students; enrollment limited to students in the Doctor of Nur Anesthesia Pract program.

**AN 7100 Advanced Pharmacology I Cr. 3**
Prepares students with in-depth knowledge and understanding of the Pharmacokinetics and Pharmacodynamics for the nurse anesthetist. Offered Fall.

**Prerequisite:** AN 7010 with a minimum grade of C

**Restriction(s):** Enrollment is limited to students with a major in Nurse Anesthesia Practice.

**Course Material Fees:** $15

**AN 7110 Advanced Pharmacology II Cr. 3**
Prepares students with in-depth knowledge and understanding of the Pharmacokinetics and Pharmacodynamics for the anesthetist. Offered Winter.

**Prerequisite:** AN 7100 with a minimum grade of C

**Restriction(s):** Enrollment is limited to students with a major in Nurse Anesthesia Practice.

**Course Material Fees:** $15
AN 7120 Advanced Pharmacology of Anesthesia Cr. 2
General qualitative and quantitative aspects of pharmacology. Interaction and kinetics of pharmacologic agents and their relationship to anesthetic practice. Offered Fall.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

AN 7150 Principles of Anesthesia I Cr. 4
Principles and usage of all anesthesia equipment including electronic instrumentation. Theoretical exploration of various techniques of anesthesia. Offered Fall.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $15

AN 7160 Principles of Anesthesia II Cr. 3
Advanced knowledge in application and use of modern anesthesia monitoring technology. Offered Winter.
Prerequisites: AN 7150
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

AN 7170 Principles of Anesthesia III Cr. 2
Continuation of AN 7160. Offered Spring/Summer.
Prerequisites: AN 7150
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $15

AN 7180 Electrocardiography in Anesthesia Practice Cr. 1
Background for monitoring, diagnosing, and treating cardiac arrhythmias in the perioperative period. Working background in fundamentals of 12-lead ECG interpretation; its application in the perioperative period. Offered Winter.
Prerequisites: AN 7150
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences; enrollment limited to students in the MS in Anesthesia program.
Course Material Fees: $12.5

AN 7181 Advanced Principles of Anesthesia IV Cr. 3
Continuation of previously learned concepts and principles of safe anesthesia practice in the treatment and management of multiple co-morbidities and disease processes. Offered Winter.
Prerequisite: AN 7170 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Nurse Anesthesia Practice.

AN 7190 Advanced Cardiovascular Pathophysiology and EKG Cr. 1
Advanced cardiovascular pathophysiology, assessing and diagnosing cardiac dysfunctions, and integration of appropriate clinical interventions in the anesthetic management plan of care. Offered Fall.
Prerequisites: AN 7180 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $12.5

AN 7220 Advanced Physiology Cr. 4
Examine normal physiology with emphasis on the respiratory, renal, cardiovascular, neurological, endocrine, liver functions and associated disease. Offered Winter.
Restriction(s): Enrollment is limited to students with a major in Nurse Anesthesia Practice.

AN 7230 Advanced Physiology II Cr. 3
Advanced knowledge in physiology and related physiological mechanisms governing, respiratory, cardiovascular, and the renal systems and as they relate to anesthesia. Offered Winter.
Prerequisite: AN 7220 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students with a major in Anesthesia or Nurse Anesthesia Practice.

AN 7240 Advanced Physiology and Pathophysiology I Cr. 3
Advanced knowledge in physiology; in-depth analysis of disease processes; correlation of pathophysiology, pharmacology, and advanced principles of anesthesia care. Offered Spring/Summer.
Restriction(s): Enrollment is limited to students with a major in Nurse Anesthesia Practice.

AN 7241 Advanced Physiology and Pathophysiology II Cr. 3
An in-depth assessment human physiology, and disease processes to include analysis of cellular structure and functions of the total body system. Offered Winter.
Prerequisite: AN 7240 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Nurse Anesthesia Practice.

AN 7500 Chemistry and Physics for the Anesthetist Cr. 2
Analysis and principles of chemistry and physics as applied to anesthesia. Offered Fall.
Restriction(s): Enrollment is limited to students with a major in Nurse Anesthesia Practice.
Course Material Fees: $20

AN 7590 Advanced Anatomy for Nurse Anesthetists Cr. 4
Structural and functional aspects of the human body; relationships to nurse anesthesia practice. Study of regions in which anesthesia may be induced. Offered Spring/Summer.
Prerequisite: AN 7590 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $400

AN 7600 Regional Anesthesia Cr. 2
Review of the anatomy and physiology of the spinal cord and peripheral nerves and the pharmacology of local anesthetic agents. Techniques of pain management administration and management of spinal/epidural and peripheral regional anesthetics. Offered Spring/Summer.
Prerequisite: AN 7590 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $20

AN 7620 Pulmonary Mechanics and Anesthesia Implications Cr. 2
Advanced evaluation of cardiopulmonary/respiratory complication. Clinical anesthesia care. Offered Fall.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

AN 7690 Advanced Clinical Anesthesia Practice Review I Cr. 1
Use of theoretical concepts and advanced clinical principles to develop the art and science of practice with emphasis on individualizing care, in addition to board preparation. Offered Winter.
Prerequisites: AN 7170 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $15
AN 7700 Advanced Clinical Anesthesia Practice and Review II Cr. 1
Use of theoretical concepts and advanced clinical principles in perfecting the art and science of anesthesia practice with emphasis on preparation for board examination. Offered Winter.
Prerequisites: AN 7170 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $10

AN 7730 Process of Teaching Cr. 2
Advanced teaching and learning concepts. Understanding diversity in the classroom, and learning styles. Offered Fall.
Restriction(s): Enrollment is limited to Graduate level students.

AN 7780 Professional Dimensions Cr. 3
Understanding the history and professional organization roles in ensuring standards of practice and commitment to society. Offered Fall.
Restriction(s): Enrollment is limited to students with a major in Nurse Anesthesia Practice.
Course Material Fees: $15

AN 7800 Pain Management for Nurse Anesthetists Cr. 1
Regional techniques and pharmacological interventions to manage acute and chronic pain. Offered Spring/Summer.
Prerequisites: AN 7600 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

AN 7880 Anesthesia Seminar Cr. 2
Current developments in concepts and theories of nurse anesthesia. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences. Repeatable for 5 Credits

AN 7885 Research Design for Anesthesia Cr. 1
Research methodologies, including quantitative and qualitative statistical techniques. Emphasis on designing, implementing, and evaluating health care research. Offered Yearly.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

AN 7890 Terminal Project Cr. 1
Finalization of research; preparation for poster submission, publication and presentation of research. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $20

AN 7891 Advanced Clinical Application I Cr. 2
This is designed for comprehensive assessments of students learned scientific, practical and technical knowledge and readiness for the National Board Examination. Offered Winter.
Prerequisite: AN 7181 with a minimum grade of C and AN 7241 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Nurse Anesthesia Practice.

AN 7900 Advanced Pediatric Topics Cr. 2
Detailed advanced lectures in specific pediatric topics. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

AN 7910 Special Topics in Pediatric Anesthesia Cr. 2
Common pediatric problems; in-depth knowledge on neonatal anesthesia. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

AN 7920 Case Presentations Cr. 2
Anatomy and physiology of various diseases including principles of anesthetic management. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students; enrollment limited to students in the Pharmacy and Health Sciences.

AN 8000 Capstone Preparation I Cr. 1
Begin fundamental strategies for research development toward applicable clinical doctoral studies. Offered Winter.
Prerequisite: AN 7890 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major in Nurse Anesthesia Practice.

AN 8001 Capstone Preparation II Cr. 1
Develop and present appropriate protocol for timely research process. Offered Spring/Summer.
Prerequisite: AN 8000 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major, minor, or concentration in Nurse Anesthesia Practice.

AN 8002 Capstone Preparation III Cr. 1
Develop and present appropriate protocol for timely research. Offered Fall.
Prerequisite: AN 8001 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major, minor, or concentration in Nurse Anesthesia Practice.

AN 8003 Capstone Completion I Cr. 1
Strategies for data analysis and methodology of research findings. Offered Winter.
Prerequisite: AN 8002 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major, minor, or concentration in Nurse Anesthesia Practice.

AN 8004 Capstone Completion II Cr. 1
Strategies for data analysis and methodology to present findings. Offered Spring/Summer.
Prerequisite: AN 8003 with a minimum grade of C
Restriction(s): Enrollment is limited to students with a major, minor, or concentration in Nurse Anesthesia Practice.