

Nurse Anesthesia (NURA)

NURA 8606 Advanced Health Assessment 3 Credits

This course, which is offered Semester III, focuses on providing students with advanced knowledge and skills in the health assessment of individuals across the lifespan within the context of the advanced practice role. Emphasis is placed on the collection, interpretation, and synthesis of relevant historical, genetic, biological, cultural, psychosocial and physical data for development of a comprehensive and holistic health assessment. Information will be integrated with aspects of the surgical procedure and knowledge gained from the course co-requisites: physiology, pathophysiology, and pharmacology, in order to prepare for and deliver a safe anesthetic. The laboratory component will utilize simulated experiences to reinforce concepts covered within this course.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8620 Anesthesia Coexisting Condit 3 Credits

This course presupposes a foundational knowledge of biochemistry, human anatomy, advanced human physiology, and pathophysiology. It focuses on delivery of a safe anesthetic to patients with aberrations in normal physiology, which produce disease and conditions which alter physiologic function. Topics are covered from an organ and system basis. Emphasis is also devoted to acquiring skill in the use of anesthesia literature and conceptualizing information gained from many sources to develop a basic understanding of delivery of a safe anesthetic to patients with the diseases discussed. Cultural and genetic factors related to individualizing anesthetic care for patients across the lifespan is integrated throughout the course.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8621 Chemistry and Physics 3 Credits

Level: Graduate

Prerequisites: (NURA 641 (may be taken concurrently) or NURA 8641 (may be taken concurrently))

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8627 Gross Anatomy for Anesthesia 3 Credits

The gross anatomy course introduces the students to the anatomy of the human body by presenting the fundamental concept of the body as an interrelated set of organ systems. The course is structured to study the human body in a regional approach, while emphasizing the relationship between form and function. All organ systems will be covered, with emphasis placed on those most relevant to the field of nurse anesthesia. Special emphasis will be given to the head, neck and airway, followed by multi organ systems including the nervous system, the back including the spinal cord, the thorax, with the respiratory and cardiovascular systems. The lectures will be followed by a laboratory period during which the students will examine the same region in a pro-sected human cadaver. Clinical application and relevance will also be discussed in the lab. Radiograms, Computer Tomograms (CT Scans) and Magnetic Resonance Images (MRI's) of normal and diseased organs will be presented in lectures and labs to emphasize the importance of anatomical knowledge in understanding the human body in health and disease.

Level: Graduate

Prerequisites: (NURA 621 or NURA 8621) and (NURA 641 or NURA 8641) and (NURA 731 or NURA 8731)

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8641 Introduction:Nurse Anesthesia 3 Credits

Level: Graduate

Prerequisites: (NURA 621 (may be taken concurrently) or NURA 8621 (may be taken concurrently))

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8652 Advanced Human Physiology 4 Credits

This course is held in conjunction with human anatomy. Topics are covered from a molecular, cellular, tissue, organ, and systems perspective, and related to issues of advance nurse anesthesia practice. The focus of this course is to impart concepts of advanced physiology which are elemental to the safe practice of anesthesia based on a comprehensive understanding of the patient's underlying physiological processes and their impact on the plan of care. Emphasis is also placed on integrating and conceptualizing information gained from many sources to develop a plan of care for clients of all ages. Finally, individual differences in physiology as related to culture, gender, race, age and genetics will be covered.

Level: Graduate

Prerequisites: (NURA 621 or NURA 8621) and (NURA 641 or NURA 8641) and (NURA 731 or NURA 8731)

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8661 Anesthesia Pharmacology 3 Credits

The focus of this course is on drugs used in clinical anesthesia practice. Major content will include the pharmacokinetics and pharmacodynamics of general anesthetic agents, analgesics, opioids, muscle relaxants, local anesthetics and adjunctive agents used in anesthesia. Emphasis is on uptake, distribution, metabolism, excretion and elimination of anesthetics. Drug dosage, side effects, and usual effects of anesthetic agents on various body systems will also be presented. The course incorporates gas laws and principles of flow in delivering inhalation anesthetic agents. Pharmacogenomics, and the importance of cultural context will be emphasized when considering the use of various pharmacologic therapies in the treatment of individual patients.

Level: Graduate

Prerequisites: (NURA 621 or NURA 8621) and (NURA 641 or NURA 8641) and (NURA 731 or NURA 8731)

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8662 Advanced Pathophysiology 3 Credits

This course presupposes a base-line knowledge of biochemistry, human anatomy and advanced human physiology and focuses on representative aberrations in normal physiology, which produce disease. Subjects are covered from an organ and system basis. Emphasis is also devoted to acquiring skill in the use of scientific literature and conceptualizing information gained from many sources to develop a basic understanding of the diseases discussed. Cultural and genetic factors in the development of various diseases is integrated throughout the course.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8671 Advanced Pharmacology 3 Credits

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Students in the DNAP-NUAN program may **not** enroll.

Enrollment is limited to Graduate level students.

NURA 8703 Adv Prin: Nurse Anesth Prac I 3 Credits

This Advanced Principles of Nurse Anesthesia course is designed to expand on the students' knowledge obtained from Basic Concepts and Principles of Nurse Anesthesia Practice, Anesthesia Pharmacology and Anesthesia and Co-existing disease. The course provides in depth didactic and hands-on, cadaver lab instruction on epidural anesthesia, spinal anesthesia, and peripheral nerve block placement and management. It examines anesthetic and nursing considerations for patients requiring surgical interventions in orthopedic, trauma and burn populations. The course will also provide insights into the anesthetic management for patients with difficult airways undergoing regional, general and monitored anesthesia care. Special considerations for elderly patients, outpatient, laparoscopic and anesthetics delivered in remote locations are also explored. The importance of considering cultural context during the development of the anesthetic plan for individual patients will be emphasized. The course is taught during the clinical practicum and allows the student to integrate advanced physiologic and nursing knowledge, skills and critical thinking into their daily practice.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment is limited to Graduate level students.

Enrollment limited to students in a Doctor in NAP degree.

NURA 8705 Adv Prin: Nurse Anesth Prac II 3 Credits

This Advanced Principles of Nurse Anesthesia course is designed to expand on the students' knowledge obtained from Basic Principles of Nurse Anesthesia Practice, Anesthesia Pharmacology and Advanced Pathophysiology. The course examines anesthetic and nursing considerations for patients with pathophysiologic disruptions requiring surgical interventions on the liver, urinary system and gastrointestinal system, as well as those undergoing organ transplantation and otorhinolaryngologic procedures. Special considerations for pediatric, neonatal, and obstetric patients are also explored. The course is taught during the clinical practicum and allows the student to integrate advanced physiologic and nursing knowledge, skills and critical thinking into their daily practice.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment is limited to Graduate level students.

Enrollment limited to students in a Doctor in NAP degree.

NURA 8707 Adv Prin of Nurse Anesth III 3 Credits

This Advanced Principles of Nurse Anesthesia course is designed to expand on the students' knowledge obtained from Basic Principles of Nurse Anesthesia Practice, Anesthesia Pharmacology and Advanced Pathophysiology. The course examines anesthetic considerations for patients with pathophysiologic disruptions requiring surgical interventions of neurosurgical, thoracic, cardiac, and vascular disorders utilizing conventional as well as advanced neurosurgical, cardiovascular, and respiratory monitoring. Cerebral, cardiac, vascular and respiratory physiology are examined in depth. Special considerations regarding anesthetic depth, pulmonary function, respiratory care and acid base balance are also explored. The course is taught during the clinical practicum and allows the student to integrate advanced physiologic and nursing knowledge, skills and critical thinking into daily practice.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8708 Princ of Nurse Anes Seminar 1 Credit

Level: Graduate

Prerequisites: NURA 8707

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in a Doctor in NAP degree.

NURA 8709 Adv Prin Nurse Anesth Prac IV 2 Credits

This Advanced Principles of Nurse Anesthesia course is designed to reevaluate the student's knowledge obtained from Anesthesia Concepts, Basic Principles of Nurse Anesthesia practice, Anesthesia Pharmacology, Advanced Pathophysiology, and Advanced Principles of Nurse Anesthesia I, II, & III. The course reviews anesthesia considerations for patients with pathophysiologic disruption requiring surgical interventions utilizing standard as well as advanced methods of anesthesia care. The course recaps anesthetic management, tailored to a patient's health status, including pharmacologic principles, patient safety, monitoring, positioning, and the operating room environment. Historical and professional aspects of nurse anesthesia practice, including legal factors and business practice, are examined. The course aids the student in preparation for the National Certifying Exam.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment is limited to Graduate level students.

Enrollment limited to students in a Doctor in NAP degree.

NURA 8718 Interdisc Health Care Ethics 2 Credits

Bioethics is a field of study directed to the interdisciplinary ethical analysis of the moral dimensions of health professional practice; this includes an analysis of moral character and vision, judgment, decision-making, clinical practices, health policies, etc. Toward this end, the goals of this course are: 1) to introduce the wide range of ethical issues in health care; 2) to familiarize students with the bioethical literature that addresses these issues; 3) to develop the basic skills of analysis, interpretation, moral communication, and argument used in bioethics, especially as it affects nurses and other professional caregivers, functioning separately and jointly, and 4) to facilitate the application of those habits of thought that integrate bioethics into the intellectual and moral life advanced practice nurses.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment is limited to Graduate level students.

Enrollment limited to students in a Doctor in NAP degree.

NURA 8731 Health Informatics 2 Credits

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8759 Health Care Policy 2 Credits

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Students in the DNAP-NUAN program may **not** enroll.

Enrollment is limited to Graduate level students.

NURA 8763 Prof Aspects and Leadership 2 Credits

The course will take the DNAP student through the history and overview of the philosophical and scientific underpinnings and the complexity of nurse anesthesia practice at the doctoral level, and the rich heritage that is the conceptual foundation of the nurse anesthesia practice Doctor. The professional aspects course will also draw from numerous communication theory models to teach the student the effective communication in both written and oral formats with a variety of cultures and peoples. Threaded through the course will be the enculturation of the CRNA role as an ethical leader within their organizations. The student will examine leadership theories and issues, with particular focus on ethical decision-making. Leadership principles are applied to a variety of scenarios focusing on collaboration, accountability, advocacy, and health care reform. The student will assimilate information on how they can affect the health system through culturally competent communication and leadership. Students will analyze selected world-views and theories from a variety of disciplines with emphasis placed on the refinement of critical thinking skills within a complex worldview in health management.

Level: Graduate

Prerequisites: (NURA 621 or NURA 8621) and (NURA 641 or NURA 8641) and (NURA 731 or NURA 8731)

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8765 US Health Systems 2 Credits

This course will explore the distribution of finance, and organization in delivery of health care services, accreditation, licensure, laws governing scope of practice and regulatory agencies. The dynamics of the major challenges affecting today's healthcare will be taught in the context of various healthcare settings. This course draws on behavioral, social, political and organizational sciences to analyze organizational effectiveness within health systems. The student will learn to develop action strategies to influence change when the analysis indicates the need for improvement. The course emphasizes the role of the CRNA in leadership positions to design processes and systems for others in an interdisciplinary environment to promote optimal patient outcomes. Analytical skills are developed through class discussion of case studies and articles.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8769 Anesthesia Safety/Quality 3 Credits

This course will prepare students to use quality measures, tools, and processes to achieve and enhance the desired outcomes of patient safety in anesthesia management. Students will be taught the history of quality in health care and influential government and private organizations. Key theoretical and conceptual aspects of quality and performance measurement and improvement will be analyzed, followed by examination of their effectiveness in anesthesia practice and patient safety. Finally, students will explore the internal and external factors that affect an organization's ability to assess and provide quality health care in the context of nurse anesthesia.

Level: Graduate

Prerequisites: (NURA 621 or NURA 8621) and (NURA 641 or NURA 8641) and (NURA 731 or NURA 8731)

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8780 Evid Based Research Methods 3 Credits

This course is the first of a sequence of courses and research seminars that prepare the learner to conduct practice-oriented research and evaluation in healthcare systems. In this course, learners consider the goals and process of scientific inquiry, scientific rigor and applicability, the theory-practice gap, problem identification, and ultimately topic selection. It will focus on: research ethics, patient safety initiatives, strategies for performance and quality improvement, accreditation action planning, and problem-solving in complex systems. The goal of this course is successful preparation of the Doctoral Project proposal topic, identification of research questions, and the literature review.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8782 Evidence Based Research Method 3 Credits

This course is the first of a sequence of courses and research seminars that prepare the learner to conduct practice-oriented research and evaluation in healthcare systems. In this course, learners consider the goals and process of scientific inquiry, scientific rigor and applicability, the theory-practice gap, problem identification, and ultimately topic selection. It will focus on: research ethics, patient safety initiatives, strategies for performance and quality improvement, accreditation action planning, and problem-solving in complex systems. The goal of this course is successful preparation of the Doctoral Project proposal topic, identification of research questions, and the literature review.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment is limited to Graduate level students.

Enrollment limited to students in a Doctor in NAP degree.

NURA 8905 DNAP Clinical Research Sem I 1 Credit

This clinical research seminar sequence will be threaded through the second and third years of the program and will begin after having completed the evidence based research methods course with a chosen topic of interest. These seminars will inform project design, and strategies in translating knowledge into practice for quality and performance evaluation and improvement. The student will identify appropriate DNAP committee members and clinical site for implementation. IRB approval, data collection, and analysis will take place in these seminar courses and culminate in the Capstone Project course.

Level: Graduate

Grading: Pass/Fail Default

Course registration restrictions:

Enrollment is limited to Graduate level students.

Enrollment limited to students in a Doctor in NAP degree.

NURA 8906 Clinical Research Seminar II 1 Credit

This clinical research seminar sequence will be threaded through the second and third years of the program and will begin after having completed the evidence based research methods course with a chosen topic of interest. These seminars will inform project design, and strategies in translating knowledge into practice for quality and performance evaluation and improvement. The student will identify appropriate DNAP committee members and clinical site for implementation. IRB approval, data collection, and analysis will take place in these seminar courses and culminate in the Capstone Project course.

Level: Graduate

Grading: Pass/Fail Default

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8907 Clinical Research Seminar III 1 Credit

This clinical research seminar sequence will be threaded through the second and third years of the program and will begin after having completed the evidence based research methods course with a chosen topic of interest. These seminars will inform project design, and strategies in translating knowledge into practice for quality and performance evaluation and improvement. The student will identify appropriate DNAP committee members and clinical site for implementation. IRB approval, data collection, and analysis will take place in these seminar courses and culminate in the Capstone Project course.

Level: Graduate

Grading: Pass/Fail Default

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8910 DNAP Project 2 Credits

The DNAP project course entails formative discussion of the findings of the student's project and development of a plan for implementation into clinical practice with a clear evaluation method for determining efficacy of translation as appropriate. The student will disseminate findings to the University community and/or in Regional and National meetings as the final project. An accepted submission of findings by a peer review journal will be considered meeting the requirements of the course in lieu of a final dissertation.

Level: Graduate

Grading: Main Campus (UGrad, Grad)

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8997 Clinical Practicum 0-1 Credits

The clinical sequence begins in the second year and continues for six semesters until graduation, during which the SRNA will be assigned in the clinical arena for 4 days/ week. Clinical practicums I and II the SRNA will be paired 1:1 with a CRNA or anesthesiologist to master basic technical skills while being introduced to the professional role of the CRNA in clinical practice. During clinical practicum III call experiences will be added to the clinical schedule and continue throughout the remaining clinical practicum sequence. The clinical sequence is designed to increase the level of independence, advancing to a 1:2 ratio as dictated by the SRNA's skill level and patient acuity/complexity. The SRNA evaluates patients, plans and administers anesthesia care throughout the perioperative care continuum incorporating culturally relevant information. Conferences and seminars are included. Clinical rotations through multiple clinical sites expose the SRNA to all clinical requirements of the Council on Accreditation of Nurse Anesthesia Educational Programs while offering the SRNA a variety of rich clinical experiences to meet the eligibility requirements of admission to the certification examination.

Level: Graduate

Grading: Pass/Fail Default

Course registration restrictions:

Enrollment limited to students in the DNAP-NUAN program.

Enrollment is limited to Graduate level students.

NURA 8998 Intro to Nurse Anesth Edu Role

This course introduces 3rd year Student Registered Nurse Anesthetists (SRNAs) to the nurse educator role. The SRNA will participate in anesthesia-specific instruction, including classroom, simulation lab, and cadaver lab teaching. This will include developing the use of effective teaching skills of an entry-level nursing educator. The review of applicable teaching and learning principles, presentation of teaching methods and strategies for instruction, and the importance of student evaluation will guide the objectives of this course. Additionally, the student will explore issues related to a student's experience level, active learning, use of technology, and student evaluation. The focus of this course is on the acquisition of practical basic knowledge and skills for entry-level faculty in a nurse anesthesia program.

Level: Graduate

Prerequisites: NURA 8997 and NURA 8905 and NURA 8705 and NURA 8763

Grading: Pass/Fail Default

Course registration restrictions:

Enrollment is limited to students with a program in Nursing (Accelerated), Nursing (Accelerated), Nursing (Accelerated) or Nursing (Accelerated).

Enrollment is limited to Graduate level students.