This is an exciting time in healthcare, and nursing plays a pivotal role in the transformation of our healthcare system. Northeastern University School of Nursing offers multiple options for graduate study, including master’s, Doctor of Nursing Practice, and PhD degree programs, as well as Certificate of Advanced Graduate Study programs, that prepare outstanding clinicians, leaders, scholars, educators, and policymakers. These programs leverage the school’s renowned faculty, as well as exceptional clinical practicum sites. Our reputation is why our graduates are sought by top employers. Practicing advanced practice nurses may easily change their specialty area by enrolling in one of our Certificate of Advanced Graduate Study programs in adult primary or acute, pediatric primary or acute, mental health, or anesthesia practice.

The Doctor of Nursing Practice (DNP) program is a practice-oriented degree designed to prepare advanced nurses at the highest level of scholarly practice. Keeping pace with the demands of today’s changing healthcare environment requires clinical experts who have the knowledge and skills to be effective change agents. Graduates of our post-master’s DNP program assume clinical and leadership positions as advanced nurses in a variety of roles, including clinical experts, nurse executives, community leaders, and professional organization leaders.

The PhD program in nursing prepares research scientists, educators, and leaders who seek to improve health and healthcare across the life span with an emphasis on urban, vulnerable, and underserved populations. Graduates are expected to lead research initiatives that advance nursing science through knowledge development and interdisciplinary scholarly inquiry.

Further information about the degrees and specializations can be found at each program's page of this catalog.

Programs

Doctor of Philosophy (PhD)
- Nursing (Post-BSN) (http://catalog.northeastern.edu/graduate/health-sciences/nursing/nursing-phd/)
- Nursing—Advanced Entry (Post-MSN) (http://catalog.northeastern.edu/graduate/health-sciences/nursing/nursing-phd-advanced/)

Doctor of Nursing Practice (DNP)
- Doctor of Nursing Practice (Post-Master's) (http://catalog.northeastern.edu/graduate/health-sciences/nursing/nursing-practice-dnp/)
- Nursing Practice with Concentration in Nurse Anesthesia (http://catalog.northeastern.edu/graduate/health-sciences/nursing/nursing-practice-concentration-nurse-anesthesia-dnp/)

Certificate of Advanced Graduate Study (CAGS)
- Adult-Gerontology Nurse Practitioner, Acute Care (http://catalog.northeastern.edu/graduate/health-sciences/nursing/adult-gerontology-nurse-practitioner-acute-care-cags/)
- Psychiatric Mental Health Nurse Practitioner (http://catalog.northeastern.edu/graduate/health-sciences/nursing/psychiatric-mental-health-nurse-practitioner-cags/)
- Neonatal Nurse Practitioner (http://catalog.northeastern.edu/graduate/health-sciences/nursing/neonatal-nurse-practitioner-cags/)
- Pediatric Nurse Practitioner, Acute Care (http://catalog.northeastern.edu/graduate/health-sciences/nursing/pediatric-nurse-practitioner-acute-care-cags/)
- Pediatric Nurse Practitioner, Primary Care (http://catalog.northeastern.edu/graduate/health-sciences/nursing/pediatric-nurse-practitioner-primary-care-cags/)
- Adult-Gerontology Nurse Practitioner, Primary Care (http://catalog.northeastern.edu/graduate/health-sciences/nursing/adult-gerontology-nurse-practitioner-primary-care-cags/)

Master of Science (MS)
- Nursing—Adult-Gerontology Nurse Practitioner, Acute Care (http://catalog.northeastern.edu/graduate/health-sciences/nursing/adult-gerontology-nurse-practitioner-acute-care-ms/)
- Nursing—Psychiatric Mental Health Nurse Practitioner (http://catalog.northeastern.edu/graduate/health-sciences/nursing/psychiatric-mental-health-nurse-practitioner-ms/)
- Nursing—Neonatal Nurse Practitioner (http://catalog.northeastern.edu/graduate/health-sciences/nursing/neonatal-nurse-practitioner-ms/)
- Nursing—Pediatric Nurse Practitioner, Acute and Primary Care (http://catalog.northeastern.edu/graduate/health-sciences/nursing/pediatric-nurse-practitioner-acute-primary-care-ms/)
- Nursing—Pediatric Nurse Practitioner, Primary Care (http://catalog.northeastern.edu/graduate/health-sciences/nursing/pediatric-nurse-practitioner-primary-care-ms/)

Graduate Certificate
- Nursing Informatics (http://catalog.northeastern.edu/graduate/health-sciences/nursing/nursing-informatics-graduate-certificate/)
NRSG 5000. Advanced Perspectives in Wellness. 4 Hours.
Offers students an opportunity to explore wellness through both theoretical and experiential pathways. Introduces theories and models of holism, wellness, stress, health promotion, health belief, and change as operational frameworks by which the student has an opportunity to reflect upon personal history, health and risk-taking behaviors, and lifestyle choices that influence health and well-being. Studies the art and science of self-care through both the emic and etic perspectives. Course topics include holistic lifestyle and health analysis, behavioral change, decision making, and stress/stress reduction. Embodied learning methodologies inform course delivery.

NRSG 5120. Statistics for Health Science. 3 Hours.
Focuses on applying formal reasoning to understand the underlying principles of statistics; how to select and conduct statistical tests; and how to interpret and use the results of data analysis in relation to research questions and research hypotheses.

NRSG 5100. Professional Development and Scientific Basis. 3 Hours.
Serves as a transitional course for the purposes of socialization and transformation of the student to the roles and scope of practice of baccalaureate generalist nurse. Employs principles of adult learning and critical thinking to assist the student in establishing the foundational skills required for scholarly communication, investigation, and study. Examines the historical and contemporary nursing theories related to the physiological, sociological, and cultural perspectives of professional practice, focusing on the four central concepts of professional nursing: person, health, environment, and nursing. Introduces the use of evidence-based practice to drive professional practice. Offers students an opportunity to develop a portfolio based on his or her personal and unique vision of professional nursing practice.

NRSG 5117. Advanced Pharmacology. 2 Hours.
Focuses on principles of pharmacology and the major drug classifications in relation to the treatment of health problems across the life span. Examines the effects of selected medications on pathophysiology and psychopathology. Emphasizes dose response, side effects/drug interactions, route of administration, and place in clinical therapy.

NRSG 5118. Healthcare System and Professional Role Development. 3 Hours.
Examines the role of the advanced practice nurse within the context of today’s healthcare system. Focuses discussion on dimensions of the advanced practice nursing role, including intra/interdisciplinary collaboration, consultation, leadership, diversity, and accountability for quality care. Examines the healthcare system with special focus on social, political, economic, ethical, regulatory, research, and legal trends. Students are expected to evaluate the interaction between healthcare system issues and advanced practice role dimensions.

NRSG 5121. Epidemiology and Population Health. 3 Hours.
Examines the theoretical basis for identification and analysis of the distribution and determinants of health problems at community, national, and international population levels. Considers health disparities that exist among specific populations and the role of government in setting policies for health promotion and disease prevention. Covers three topical areas: basic principles and population measures of epidemiology; epidemiologic study methods; and application of epidemiologic tools in interdisciplinary settings. Complements planned topics with current examples of population health issues. The goal is to understand the principles and practice of monitoring population health. Skills acquired assist advanced practice nurses, other clinicians, or administrators in critically evaluating new epidemiologic literature and in using the basic tools of epidemiology to assess population health and develop strategies for monitoring health improvement.

NRSG 5126. Pathophysiology for Advanced Practice. 3 Hours.
Covers content that provides current understanding of major disease processes across the life span. Builds upon the knowledge of anatomy, physiology, biochemistry, microbiology, and immunology. Focuses on physiologic dysfunction; physiologic adaptation in maintaining the internal environment; and feedback mechanisms at the cellular, organ, and systems level. Seeks to provide students with a way of thinking about disease for each body system. Provides a comprehensive study of underlying concepts common to major pathophysiologic processes of the body, including specific diseases affecting the cardiovascular, endocrine, gastrointestinal, hematological, immunological, nervous, pulmonary, and renal systems.

NRSG 5127. Scientific Inquiry and Epidemiological Concepts. 3 Hours.
Emphasizes methods of scientific inquiry and epidemiological concepts relative to individual and population health. Addresses multiculturalism concepts relative to health and illness. Stresses theoretical frameworks, methods of inquiry, and appropriate use of selected statistical analyses. Offers students an opportunity to analyze data to improve healthcare delivery for individuals and populations. Examines threats to internal and external validity. Emphasizes critical appraisal of evidence as a basis for translation into practice. Explores strategies and tools for retrieval, compilation, critical appraisal, and application of empirical and practice-based information. Restricted to USAGPAN students only.

NRSG 5170. Statistics in Nursing. 2 Hours.
Part of the USAGPAN program. This course provides students the opportunity to understand biostatistics and their application in scientific research. Students conduct a systematic inquiry relative to an identified anesthesia problem, conduct a research study, and apply the appropriate statistical measurement to analyze the data. In addition, the statistical foundation obtained from this course will enable students to critically analyze scientific literature. Restricted to USAGPAN students only.

NRSG 5174. Clinical Anatomy and Physiology 2 for Nurse Anesthesia. 5 Hours.
Part of the USAGPAN program. This course provides students the opportunity to build upon their knowledge of the anatomy and physiology of the endocrine, respiratory, and renal systems with particular reference to anesthesia, respiratory, and acute care management. Students engage in critical thinking regarding the effects of anesthesia on the normal physiological processes of the respiratory, endocrine, and renal systems. Restricted to USAGPAN students only.
NRSG 5182. Physical Examination and Differential Diagnosis. 4 Hours.
Part of the USAGPAN program. This course provides students the opportunity to refine and specialize their assessment skills with an emphasis on assessing for the presence and quantifying the severity of problems with significant implications for anesthesia care. Particular attention is paid to the importance of consulting appropriately for preoperative optimization and the development of plans for anesthesia care that minimize anesthesia related risk. Restricted to USAGPAN students only.

NRSG 5184. Biochemistry for Nurse Anesthesia. 4 Hours.
Part of the USAGPAN program. A graduate level course which provides the student an opportunity to correlate biochemical principles as they apply to the physiology, pathophysiology, and pharmacology of anesthesia nursing. Major topics covered include: (1) structure and function of DNA, RNA and proteins; (2) basic medical genetics; (3) protein structure and function; (4) common metabolic pathways of carbohydrates, lipids, and amino acids; and (5) special topics including clinical chemistry. Lectures are supplemented by case studies and clinical correlate presentations related to anesthesia. Restricted to USAGPAN students only.

NRSG 5976. Directed Study. 1-4 Hours.
Allows student to develop an individualized plan to attain specific knowledge and skills related to professional goals. May consist of library study and reading, individual instruction, research, practicum, or other appropriate activity as approved by instructor and academic adviser. May be repeated without limit.

NRSG 6115. Health Assessment. 3 Hours.
Focuses on human physiology and the development of advanced health assessment knowledge and skills related to performing regional and comprehensive examinations of the client across the life span. Includes variables among cultural groups. Students synthesize knowledge from nursing, physical, social, and health sciences as they analyze data collected in the assessment process. Focuses on interviewing skills and systematic performance, analysis and documentation of health assessment process. Differentiation of normal and abnormal findings is emphasized utilizing critical thinking. Introduces the student to diagnostic reasoning within the scope of practice of the nurse in the advanced practice role. Nursing degree students only.

NRSG 6116. Advanced Health Assessment of the Neonate and Infant. 3 Hours.
Focuses on human physiology and the development of advanced health assessment skills to build a knowledge base with which to perform a thorough assessment and examination of the neonate and infant. Offers students an opportunity to learn to evaluate family history through chart review and direct interviewing to gain knowledge of the neonate and to anticipate certain findings based on information gained through a thorough assessment and physical examination. Emphasizes identifying normal from abnormal findings through critical thinking, introducing the student to diagnostic reasoning, which is the basis of the advance practice nurse role.

NRSG 6220. Nursing Management: Acute Episodic Illness. 3 Hours.
Addresses the assessment, preventive, and health maintenance theories of healthcare utilized by the acute-care advanced practice nurse. Includes common problems causing episodic and acute illnesses and the advanced nursing management skills needed to address them and implement initial management skills. Uses current theories and research from nursing and the physical and behavioral sciences as a basis for clinical decision making, with an emphasis on critical thinking and diagnostic reasoning. The nursing process and life cycle are integral frameworks used to structure the delivery of course content. Restricted to students in selected nursing programs or with permission of instructor.

NRSG 6221. Nursing Management: Critical and Chronic Illness. 3 Hours.
Emphasizes the acquisition of theoretical knowledge essential to understanding the common life-threatening and chronic, long-term pathophysiological problems, differential diagnosis, and related advanced nursing care of critically and chronically ill individuals and families. Addresses common problems causing critical, life-threatening illnesses, the chronic sequelae from these problems, and the advanced nursing management skills needed to address them. Uses current theories and research from nursing and the physical and behavioral sciences as a basis for clinical decision making, with an emphasis on critical thinking and diagnostic reasoning. The nursing process and life cycle are integral frameworks used to structure the delivery of course content. Restricted to students in selected nursing programs or with permission of instructor.

NRSG 6222. Pharmacology of Adults and Older Adults. 2 Hours.
Covers age-related changes in pharmacokinetics and pharmacodynamics and the prescription, administration, and monitoring of medications for older adults. Includes a detailed discussion of the most common drugs and classes of drugs prescribed for the elderly, as well as the signs and symptoms of drug toxicity particular to older adults. Investigates the impact of race/ethnicity on prescribing practices. Also discusses medication history guidelines for older adults, age-related considerations in prescribing for the elderly, and methods to support drug compliance and prevent inappropriate drug use and adverse drug reactions. Examines over-the-counter drug use among older adults. Emphasis is on the problem of polypharmacy for the older adult and the prevention, recognition, and treatment of drug interactions among older adults.

NRSG 6230. Nursing Management: Critically Ill Neonatal 1. 3 Hours.
Focuses on the acquisition of knowledge about complex physiological concepts essential to the care of the critically ill neonate. Begins with the actual and potential alterations in fetal/neonatal well-being, adaptation to extraterine life, and factors that interfere with adaptation to extraterine life. Also emphasizes the acquisition of theoretical knowledge essential to understanding the neonate's response to life-threatening problems. Discusses neonatal pathophysiologic disorders in terms of the nursing process and management of the neonate and their families. Uses current theories and research from nursing, biomedical, physical, and behavioral sciences as a basis for clinical decision making. The nursing process and developmental theory are frameworks utilized to structure the delivery of course content.

NRSG 6231. Nursing Management: Critically Ill Neonatal 2. 3 Hours.
Continues NRSG 6230. Covers the acquisition of theoretical knowledge essential to understanding the neonate's response to life-threatening problems. Discusses neonatal pathophysiologic disorders in terms of the nursing process and management of the neonate and their families. Uses current theories and research from nursing, biomedical, physical, and behavioral sciences as a basis for clinical decision making. The nursing process and developmental theory are frameworks utilized to structure the delivery of course content.

NRSG 6232. Neonatal Pharmacology. 2 Hours.
Focuses on building upon basic knowledge in pharmacology and providing content essential for nurses in the expanded role. Examines the principles of pharmacology and major drug classifications as they relate to the causes and treatment of health and illness problems affecting critically ill neonates.
NRSG 6241. Acute-Care Concepts in Nursing Practice. 3 Hours.
Focuses on the analysis and application of core physiological, behavioral, environmental, and psychosocial concepts essential for advanced nursing care of acute and critically ill individuals. Topics include the utility and clinical implications of monitoring technology available in the acute-care setting, the acute-care environment and its impact on patient and family systems, and the concepts of stress, grief, and coping. Also addresses the advanced nursing management of the multiple trauma patient and the related physiologic and clinical concepts. Opportunity is provided for exploration and development of concepts unique to each student’s area of concentration within the acute-care specialization. Restricted to students in selected nursing programs or with permission of instructor.

NRSG 6249. Health Promotion of Adult/Older Adult. 3 Hours.
Focuses on the assessment, preventative, and health maintenance and promotion theories utilized by advanced practice nurses. Includes the impact of political, psychological, sociological, and physiological factors on the healthcare continua of the adolescent/adult/older adult. Explores self-modeling of health behaviors and institution of primary and secondary preventative strategies in the home, community, workplace, and primary care facility. Discusses and utilizes theoretical and strategic approaches to behavior change necessary for health promotion.

NRSG 6253. Primary Care of Adult/Older Adult Health Problems. 4 Hours.
Building upon NRSG 6252, seeks to further develop the intellectual and attitudinal competencies necessary for successful performance as a primary healthcare provider. Focuses on assessment, diagnosis, and management of adolescents/adults/older adults with minor acute and stabilized chronic illness in the community and long-term care facility. Emphasizes the nurse practitioner role functions of collaborative interdisciplinary management, consultation, and referral skills.

NRSG 6254. Primary Care of Adult/Older Adult Complex Patients. 4 Hours.
Focuses on the assessment and intervention of adults/older adults with complex multisystem health problems/diseases in primary care and long-term care settings. Utilizes knowledge from pathophysiology, pharmacology, and psychosocial sciences to increase knowledge and skill of the advanced practice nurse in the care of adults/older adults with complex problems. Teaches students about the role and expertise of advanced practice nurses and other professionals in diverse settings.

NRSG 6256. Family Nurse Practitioner Practicum 2. 3 Hours.
Seeks to provide clinical learning experiences in the delivery and coordination of comprehensive pediatric care, including, but not limited to, well-child care, episodic care, chronic care, and urgent care. Focuses on performing a comprehensive health assessment of the child and family within the urban community utilizing an evidence-based and culturally competent approach. Emphasizes health promotion, health maintenance, and protection, as well as identification of children and families at risk. Requires students to practice in the clinical setting a minimum of twenty hours per week.

NRSG 6257. Family Nurse Practitioner Practicum 3. 3 Hours.
Seeks to provide clinical learning experiences in the coordination and delivery of care to infants, children, adolescents, and young adults, and their families, within the context of their culture and urban community. Continued clinical practice experiences across settings and continuum of care offer an opportunity to develop knowledge, attitudinal competencies, and skills in the delivery of care to children, with a focus on acute and chronic health issues. Offers students an opportunity to learn to assess, diagnose, and manage chronic conditions and acute illnesses commonly encountered in childhood, adolescence, and young adulthood and to build on a foundation of practice behaviors in health assessment, health promotion, and disease prevention. Emphasizes urban health. Requires students to practice in the clinical setting a minimum of twenty hours per week.

NRSG 6252. Pediatric Pharmacology. 2 Hours.
Focuses on the principles of pharmacology and the major drug classifications in relation to the treatment of health problems during childhood and adolescence. Examines the effects of selected medications on pathophysiology and psychopathology. Discusses the implication of practice.

NRSG 6262. Pediatric Pharmacology. 2 Hours.
Focuses on the principles of pharmacology and the major drug classifications in relation to the treatment of health problems during childhood and adolescence. Examines the effects of selected medications on pathophysiology and psychopathology. Discusses the implication of practice.

NRSG 6264. Care of Well Child/Adolescent Health Promotion. 4 Hours.
Focuses on the health assessment on newborns, well children, adolescents, and their families within a community. Discusses issues most pertinent to the various ages of the well child within a community-based primary care framework of anticipatory guidance and health promotion. Emphasizes the utilization of a comprehensive approach to preventative healthcare by examining the impact of psychological, sociological, developmental, behavioral, cultural, and physiological factors on the child’s health status within the family and community. Includes routine healthcare maintenance, screening, developmental issues, genetic implications, family dynamics, confidentiality, self-care, and common health concerns encountered in primary care settings.

NRSG 6265. Care of Child/Adolescent Health Problems. 4 Hours.
Builds upon the knowledge and skills gained in NRSG 6264. Seeks to further develop within the student the intellectual and attitudinal competencies necessary to successfully perform as a primary healthcare provider. Focuses on acute and chronic health problems seen in infants through young adults, Encompasses assessment, diagnosis, and management of children with acute and stabilized chronic illness, genetic and reproductive health issues, nutritional concerns, dermatology, sports and activity-related injuries, and perinatal care. Considers family, cultural, and community context. Emphasizes the nurse practitioner role, including the development of consultation and referral skills.

NRSG 6267. Care of the Critically Ill Child. 4 Hours.
Using a combined didactic and clinical approach, examines the specific issues in the care of children with critical conditions. Designed to provide students with the knowledge and skills necessary to meet the unique needs of fragile children, including urban children who are at risk for poor health outcomes. Offers students clinical experience caring for these children.
NRSG 6275. Urban Families at Risk: A Primary Care Approach. 4 Hours.
Integrates academic and clinical learning into a unique collaborative experience, which affords students the opportunity to explore emerging trends and patterns of healthcare practices in the urban setting. Urban healthcare poses multiple challenges to nurses, including the need to master new skills and competencies and to understand the complex needs of these communities. Primary care providers need to be aware of the social and environmental context of children and their families. Examines the broad issues in the primary healthcare of identified, underrepresented urban groups: and gay, homeless and abused women and children. Mentors students in both the classroom and clinical settings to explore current issues inherent in caring for underserved populations in urban settings through utilization of innovative strategies.

NRSG 6281. Dimensions of Clinical Practice. 3 Hours.
Focuses on psychodynamic history taking, mental status evaluation, psychodynamic treatment formulations, and designs of psychiatric treatment contracts for various aged clients. Studies the major forms of psychopathology, clinical theory, and the use of the DSM IV-R to make decisions for clients across the life span. Emphasizes supportive and insight-oriented approaches in dynamic therapy, and addresses prevention and treatment approaches for populations at risk. Identifies outcome indicators and describes goal-setting strategies.

NRSG 6282. Clinical Psychopharmacology. 3 Hours.
Provides comprehensive overview of major classes of psychotropic medications and the related psychiatric disorders associated with medication prescription. Emphasizes clinical nursing decision making related to choice of medication, differential diagnosis and drug interactions, safe monitoring with attention to side effects, and integration of medication management into a treatment regimen for various patient populations.

NRSG 6283. Psychobiological Bases of Mental Disorders. 3 Hours.
Focuses on major psychiatric disorders across the life span as identified in the DSM IV manual. Studies the central and autonomic nervous systems, stress-response syndrome, neurotransmitter activity, and neuroendocrine immune interactions. Reviews the biological base of mental disorders, and addresses the use of biological interventions in symptom reduction. Also reviews the psychiatric complications of physical illness and common physical disorders to rule out psychiatric conditions. Emphasizes the integration of biological with psychosocial approaches to treatment of mental disorders.

NRSG 6286. Contemporary Psychotherapies—Theory and Practice. 3 Hours.
Introduces the theory and practice of various forms of psychotherapy. Discusses theory and techniques associated with each therapy with regard to theoretical underpinnings, therapeutic action, techniques, relationship between therapist and patient, and application to different diagnostic populations. Uses lecture and seminar format to present material and case data to illustrate different psychotherapeutic perspectives.

NRSG 6287. Child and Adolescent Psychopharmacology. 2 Hours.
Provides a comprehensive overview of major classes of psychotropic medications for pediatric populations. Relates psychiatric disorders associated with medication prescription, differential diagnosis and drug interactions, safe monitoring with attention to side effects, and integration of medication management into a treatment regimen for various patient populations. Uses clinical cases to illustrate complex issues related to prescribing psychotropic medications for children.

NRSG 6288. Geriatric and Aging Adult Psychopharmacology. 2 Hours.
Offers a comprehensive overview of major classes of psychotropic medications and integration of medication management into a treatment regimen for geriatric and aging adult clients. Uses clinical cases to illustrate complex issues related to prescribing psychiatric medications for the geriatric population.

NRSG 6300. Healthcare Finance and Marketing. 3 Hours.
Covers healthcare economics and the financial and marketing functions and responsibilities of healthcare leaders. Emphasizes the decision-making process involved in assuring financial management and management of the exchange process between an organization and its “publics” by which both parties satisfy their needs and wants (marketing). Focuses on the integration of clinical and business aspects of healthcare into decision making for the advanced practice nurse leader.

NRSG 6301. Human Resources and Operations. 3 Hours.
Studies the essential practice of human resource management within healthcare organizations with a focus on leading and managing a professional nursing workforce. Quality healthcare is dependent on the availability and retention of adequate numbers of sufficiently educated and competent nurses and nonprofessional healthcare personnel. Examines the strategic management of a professional nursing and nonnursing healthcare workforce from many perspectives, including theoretical concepts relevant to human resource management in complex systems; legal and regulatory considerations; trends in nursing workforce supply/demand and composition; professional practice and participatory governance models; workplace diversity; collective bargaining; healthy work environment; and relational skill development, including conflict management. Discusses implications for nurse leaders within varying levels in the organization/system.

NRSG 6302. Health Policy and Law. 3 Hours.
Examines health policy and health laws by advanced practice nurses from the perspective of issues pertinent to public health, populations, communities, their healthcare, and its coordination. Reviews and criticizes court decisions, legislation, federal, and state regulatory activities relevant to healthcare and health policy initiatives. Discusses the concept of continuous quality improvement through the development of standards of care and evaluation outcomes. Explores healthcare as a vital part of a national care agenda. Concepts are presented for application through the manager-as-developer model, which includes influence, vision, two-way communication, autonomy, team building, and development.

NRSG 6306. Health Informatics. 3 Hours.
Seeks to prepare students to use information systems and technology to support and improve patient care and healthcare systems. Examines the meta-structures (data, information, knowledge, and wisdom), concepts and tools of nursing, and healthcare informatics. Focuses on information literacy, including a critical examination of both electronic patient health information and provider decision support resources. Covers ethical and legal issues, including privacy and security, related to electronic systems. Database concepts, including data mining, warehousing, electronic data collection, and aggregation for research and patient care, are important components of this course. Examines the role of the nurse as a change agent during health information technology implementation. Students who do not meet course prerequisites may seek permission of instructor.
NRSG 6307. Operational Informatics in Healthcare Organizations. 3 Hours.
Expands on NRSG 6306. Covers theoretical, empirical, and practical knowledge and skills for effective strategic and operational informatics nursing leadership. Specific topics address systemwide change management and leadership particular to information technology, the interpretation and application of key metrics for evaluating health information systems (HIS); and the selection, assessment, design, building, testing, implementation, evaluation, and promotion of evolving HIS within healthcare organizations (HCOs). Finally, examines the strategic role of executive nursing leadership within HCOs and emerging informatics needs in analytics and reporting to evaluate health outcomes. Students who do not meet course prerequisites may seek permission of instructor.

NRSG 6308. Healthcare Management. 3 Hours.
Offers students an opportunity to prepare for their future roles as managers within a healthcare delivery system. Examines the founding principles and dynamics of healthcare management and the healthcare system. Explores the basic concepts and skills in administration. Analyses management issues that distinguish health services organizations from other types of organizations and strategies for dealing with these issues. Restricted to USAGPAN students only.

NRSG 6310. Nurse/Healthcare Entrepreneur. 3 Hours.
Provides graduate students with the theoretical foundation to do business planning. This process is examined from a nurse/healthcare entrepreneur perspective. Identifies strategies for achieving business goals in nursing/healthcare. Emphasis is on actualizing a winning business plan in nursing/healthcare through step-by-step approach with a strong focus on marketing, planning, and financial analysis.

NRSG 6320. Role/Practice Issues in Nurse Anesthesia. 3 Hours.
Focuses on the development and current trends in nurse anesthesia practice, education, and research. Includes the historical, legal, legislative, and professional role issues associated with advanced practice anesthesia nursing. Emphasizes professional responsibilities, ethical issues, diversity, cultural competency, quality assurance, continuing education, and professional involvement.

NRSG 6321. Conceptual Basis of Nurse Anesthesia Practice 1. 3 Hours.
Covers fundamental knowledge and skills for entry into advanced practice anesthesia nursing. Includes assessment, essential techniques, monitoring and equipment, pharmacologic interventions, and safe practice across the life span.

NRSG 6322. Conceptual Basis of Nurse Anesthesia Practice 2. 3 Hours.
Continues NRSG 6321 with in-depth knowledge and skills of highly specialized problems and conditions requiring anesthesia or surgical interventions. Includes assessment, techniques, planning, and pharmacologic intervention for patients with disorders of the cardiovascular and pulmonary systems across the life span.

NRSG 6324. Chemistry and Physics in Anesthesia. 3 Hours.
Reviews organic functional group chemistry and introduces the principles of medicinal chemistry; provides a foundation for the in-depth study of drugs, including intravenous agents and anesthetic adjuncts. Focuses discussions on physics and technology in anesthesia practice, gas laws, biotransformation of anesthetics, pharmacology of anesthetics and adjuncts, and recent development in general anesthetic agents.

NRSG 6325. Pharmacotherapeutics in Anesthesia and Critical Care Nursing. 2 Hours.
Concentrates on the mechanisms of action common to many pharmacotherapeutic agents. Helps to increase students’ understanding of general principles of drug actions, interactions, and side effects, especially related to the administration of anesthesia. Includes content of dose-effect relationship, pharmacokinetics, drug allergy, pharmacogenetics, and teratogenic side effects. Consists of lectures, discussions, assignments, and examinations. Requires a presentation of a short paper on a selected topic.

NRSG 6333. Conceptual Basis of Nurse Anesthesia Practice 3. 3 Hours.
Covers in-depth knowledge and skills of highly specialized problems and conditions requiring anesthesia or surgical interventions. Includes assessment, techniques; planning; and pharmacologic intervention for patients with disorders of the nervous, endocrine, renal, and hepatic systems across the life span.

NRSG 6336. Advanced Concepts in Nurse Anesthesia Practice. 3 Hours.
Covers in-depth knowledge and skills of highly specialized problems and conditions requiring anesthesia or surgical interventions. Includes assessment, techniques, planning, and pharmacologic intervention for regional anesthesia, pain management, care of obstetrical patients, transplantation surgery, and patients with catastrophic condition.

NRSG 6341. Teaching Nursing: The Art and Science. 3 Hours.
Explores various learning theories and their application to practice disciplines. Emphasis is on efforts to enhance critical thinking and problem solving, with assessment of technological aids for learning. Examines teaching modalities as they are related to increasing levels of complexity of information, and offers an introduction to the assessment of teaching effectiveness.

NRSG 6344. Healthcare Quality Improvement. 3 Hours.
Focuses on critical issues related to healthcare quality improvement (QI) and nursing leadership to promote safe, timely, effective, efficient, equitable, and patient-centered care and services. Examines the science of improvement from many perspectives including current national reports, trends, and initiatives; standards, culture of safety, patient and staff safety; QI models, measurement, methods, and monitoring of care outcomes; use of healthcare informatics in the QI process; QI projects; and leadership and change related to development and implementation of quality improvement. Students are expected to work with a team to apply knowledge in a quality-improvement project based on a current healthcare problem.

NRSG 6371. Pharmacology for Nurse Anesthesia 2. 4 Hours.
Offers the second course in a two-part series. Focuses on drugs used in anesthesia with particular reference to dosage, mechanism of action, characteristic drug effects, factors modifying drug effects, toxicity, and indications and contraindications for use. Restricted to USAGPAN students only.
NRSG 6372. Professional Aspects of Nurse Anesthesia Practice. 3 Hours.
Part of the USAGPAN program. This course focuses on nurse anesthesia practice in a variety of practice settings. A study of the history of anesthesia and nurse anesthesia practice and the relationship of that practice in the development and growth of the American Association of Nurse Anesthetists. The legal aspects of practice will be explored. The various functional roles of the nurse anesthetist related to administration, education, research and consultation with an orientation to administration and the teaching/learning process, and research will be explored. This course will enable the student to acquire knowledge, understanding, and appreciation for the historical aspects of anesthesia, to be aware of the legal ramifications concerning the administration of anesthesia, and understand the current issues affecting the nurse anesthetist's role in administration, education, and research. Restricted to USAGPAN students only.

NRSG 6375. Fundamentals of Nurse Anesthesia Practice 1. 9 Hours.
Seeks to integrate nursing science with biophysical sciences to prepare nurses for the highest level of advanced nursing practice in the specialty of anesthesia. Offers students an opportunity to learn the basic principles governing the practice of anesthesia, including physical principles, anesthesia gas delivery systems, preparation for administration of anesthesia, intraoperative management of anesthesia, regional anesthesia, biomedical monitoring, and GETA simulation. Introduces the formulation of anesthetic care plans, anesthetic techniques, prevention of patient complications, procedures and equipment requirements, monitoring, record keeping, and care of equipment. Restricted to USAGPAN students only.

NRSG 6379. Fundamentals of Nurse Anesthesia Practice 2. 9 Hours.
Continues NRSG 6375. Covers a broad range of anesthesia nursing interventions. Concentrates on the theoretical basis and rationale for specific anesthetic management actions, offering students an opportunity to learn advanced principles governing anesthesia practice. Modules cover several categories of patients and types of surgical cases, including cardiovascular, pulmonary, endocrine, central nervous system, neuromuscular disorders, pediatrics, obstetrics, trauma/austere environments, and subspecialties. Introduces students to the development of individualized anesthetic care plans, anesthetic techniques, monitoring, perioperative pain management, prevention of patient complications, surgical and anesthesia procedures and equipment requirements, and record keeping. Lectures focus on advanced health/physical assessment, physiology, pathophysiology, and the scientific underpinnings of evidence-based anesthesia practice. Restricted to USAGPAN students only.

NRSG 6390. Family Care of the Adult/Older Adult Patient. 4 Hours.
Focuses on the assessment, diagnosis, and management of minor acute and stabilized chronic conditions in the adult and older adult populations in the community and long-term-care facilities. Explores theories of health promotion and health maintenance. Discusses the impact of political, psychological, sociological, and physiological factors as they impact the care of the adult and older adult. Emphasizes the role of the advanced-practice nurse practitioner as a member of collaborative teams, consultant, and model of health behaviors.

NRSG 6391. Practicum for NRSG 6390. 4 Hours.
Offers a clinical practicum focusing on the adult and older adult with risk for premature morbidity and mortality and family centered health promotion. Emphasizes the care of the adult with complex multisystem health problems and conditions. Explores care of individuals in acute- and long-term-care settings.

NRSG 6392. Family Theory. 2 Hours.
Focuses on the assessment and management of the changing family structure across the life span of the family. Emphasizes the identification of families at risk for premature morbidity and mortality. Presents guiding principles and strategies for assessing the family, various theories of family structure and process, and techniques for engaging and connecting with families. Explores the family as an emotional unit, the individual patient as a member in his or her family of origin, and strategies for applying this knowledge in a clinical setting.

NRSG 6393. Family Care of the Pediatric and Adolescent Patient. 4 Hours.
Focuses on the health assessment of individuals from the newborn stage into young adulthood. Emphasizes the utilization of an evidence-based approach to acute and chronic health conditions. Considers family, cultural, and urban community context and anticipatory guidance and health promotion within a culturally competent framework.

NRSG 6394. Practicum for NRSG 6393. 4 Hours.
Offers a clinical practicum focusing on providing students with clinical learning experiences in the performance of comprehensive health assessments of children and families within the urban community. Using an evidence-based and culturally competent approach, emphasizes health promotion, health maintenance, and protection, as well as identification of children and families at risk. Offers students an opportunity to learn to assess, diagnose, and manage chronic conditions and acute illnesses commonly encountered in childhood, adolescence, and young adulthood. Builds on a foundation of practice behaviors in health assessment, health promotion, and disease prevention with a particular focus on urban health.

NRSG 6395. Healthcare of Women in Family Practice. 2 Hours.
Discusses health assessment, promotion, and care of women through the life span. Emphasizes the perinatal time period.

NRSG 6396. Practicum for NRSG 6395. 4 Hours.
Focuses on the assessment, diagnosis, and management of acute and chronic health conditions of women and families. Emphasizes the care of women during the perinatal and postpartum periods. Explores family health as the family structure changes across its life span. Emphasizes the role of the advanced-practice nurse practitioner as a member of collaborative teams, as a consultant, and as a model of health behaviors.

NRSG 6420. Adult-Gerontology Acute-Care Nursing Practicum 1. 2 Hours.
Focuses on the assessment, preventative, and health-maintenance aspects of acute and episodic healthcare to adults (including older adults). The clinical practice emphasizes the multiple factors affecting the adult patient across the life span. The application of theory to the care of these patients through participation, observation, and research is facilitated by assignment to a clinical preceptor. Weekly seminars focus on an array of issues surrounding the role of the advanced practice nurse. Requires students to practice in the clinical setting a minimum of eight hours per week.

NRSG 6421. Adult-Gerontology Acute-Care Nursing Practicum 2. 4 Hours.
Continues NRSG 6420. Offers students individualized experiences in the role of practitioner, educator, and manager. Facilitated by assignment to a clinical preceptor, students focus on the provision of care to adults (including older adults) experiencing complex, critical, and chronic health problems. Demonstrates how to assess, diagnose, and manage illnesses in the acute-care, chronic, or rehabilitation setting. Uses concurrent weekly seminars to focus on the roles of the advanced practice nurse. Requires students to practice in the clinical setting a minimum of twenty hours per week.
NRSG 6422. Adult-Gerontology Acute-Care Nursing Practicum 3. 4 Hours.
Continues NRSG 6421. Offers students an opportunity to synthesize their previous learning experiences; to plan, deliver, and evaluate advanced nursing care to patients with complex healthcare problems; and to acquire the skills necessary to manage clients in an acute-care setting. Uses concurrent weekly seminars to analyze the impact of the advanced practice role on long-term patient care, interdisciplinary relationships, and healthcare policy. Requires students to practice in the clinical setting a minimum of twenty hours per week.

NRSG 6430. Neonatal Clinical Practicum 1. 4 Hours.
Focuses on the skills necessary for management of the high-risk neonate and family. Students have the opportunity to provide direct care under the supervision of NNP preceptors in the hospital neonatal intensive care unit (NICU), responsible for daily management of a specified caseload of neonates and their families, including therapeutic and diagnostic procedures. Supervised delivery room management of the high-risk neonate is expected, where available. Seeks to familiarize the student with respiratory distress syndrome, transient tachypnea, pneumonia, pulmonary hypertension, congenital heart disease, and patent ductus arteriosus, with appropriate management strategies. Requires students to practice in the clinical setting a minimum of twenty hours per week.

NRSG 6431. Neonatal Clinical Practicum 2. 4 Hours.
Continues NRSG 6430. Offers the second in a series of three courses focusing on the acquisition of clinical skills necessary for patient management of the high-risk neonate and family. Students have the opportunity to provide direct care under the supervision of NNP or neonatologist preceptors in the hospital neonatal intensive care unit (NICU), responsible for daily management of a specified caseload of neonates and their families, including therapeutic and diagnostic procedures. Supervised delivery room management of the high-risk neonate is expected, where available. Seeks to familiarize the student with disease processes commonly encountered in the term and preterm infant populations and appropriate management strategies. Requires students to practice in the clinical setting a minimum of twenty hours per week.

NRSG 6432. Neonatal Clinical Practicum 3. 2 Hours.
Continues NRSG 6431. Offers the final course in the series focusing on the acquisition of clinical skills and expertise necessary for patient management of the high-risk neonate and family. Provides the student with intensified experience in the hospital neonatal intensive care unit (NICU) providing direct care under the supervision of NNP or neonatologist preceptors. The student is responsible for daily management of a specified caseload of neonates and their families. Proficient delivery room management of the high-risk neonate is an expectation. The student should exhibit the ability to function as an independent novice practitioner with preceptor support.

NRSG 6444. Healthcare Systems and Quality Patient Care. 3 Hours.
Offers a theory course emphasizing the use of systems thinking and systems theory as a guide for analyzing and improving healthcare systems. Emphasizes the complex challenges of leading change to achieve quality healthcare for aggregate populations within systems of care. Examines the role of nurses as leaders of the discipline and managers of healthcare services within team-based healthcare structures. Course topics include systems and organizational theory, health systems analysis, transformative leadership concepts, change management theory, outcomes assessment, and teamwork and team-based care delivery concepts and practices.

NRSG 6449. Health Promotion of Adult/Older Adult Practicum. 1 Hour.
Applies knowledge acquired in NRSG 6249. Focuses on the assessment and health promotion of adults/elder adults in the primary care settings. Utilizes selected clinical experiences to increase and apply health and risk-assessment skills with adult populations in the community. Also offers students an opportunity to acquire a beginning knowledge of the role of the adult/older adult nurse practitioner in primary care settings.

NRSG 6450. Adult/Older Adult Practicum 1. 4 Hours.
Provides a clinical learning experience that correlates with the content presented in NRSG 6250. Focuses on assessment of the adult life span within a holistic framework. Emphasizes identification of individuals at risk for premature morbidity and mortality, as well as focusing on advanced health assessment techniques and interpretation of abnormal findings on physical examination and developing a client/family health-promoting plan of care within the advanced practice role of the nurse practitioner. Requires students to practice in the clinical setting a minimum of sixteen hours per week.

NRSG 6451. Adult/Older Adult Practicum 2. 4 Hours.
Continues NRSG 6450. Focuses on providing the student with clinical learning experiences in the coordination and delivery of primary healthcare nursing services to adults and their families, with emphasis on underserved populations. Studies how to assess, diagnose, and manage acute and chronic conditions and illnesses commonly encountered in adult populations. Students build on a foundation of practice behaviors in health assessment, health promotion, and disease prevention. Requires students to practice in the clinical setting a minimum of sixteen hours per week.

NRSG 6460. Care of Well Child/Adolescent Health Promotion Practicum. 4 Hours.
Provides the student with clinical learning experiences in the delivery and coordination of primary-care services to well infants, children, adolescents, and young adults and their families. Focuses on performing a comprehensive health assessment of the child and family utilizing a holistic approach. Emphasis is on health promotion, health maintenance, and identification of individuals or families at risk. The utilization of two clinical sites provides the opportunity for the student to evaluate interdisciplinary role responsibilities and clinical practice standards. Weekly seminar discussion fosters critical analysis of clinical experiences and the integration of theory, research, and primary practice. Requires students to practice in the clinical setting a minimum of twenty hours per week.

NRSG 6461. Child/Adolescent Health Problems Practicum. 4 Hours.
Continues NRSG 6460. Focuses on providing the student with clinical learning experiences in the coordination and delivery of primary-care nursing services to infants, children, adolescents, and young adults and their families within the context of their culture and community. Studies how to assess, diagnose, and manage stable chronic conditions and acute episodic illnesses commonly encountered in childhood, adolescence, and young adulthood. Students build on a foundation of practice behaviors in health assessment, health promotion, and disease prevention. Requires students to practice in the clinical setting a minimum of twenty hours per week.
NRSG 6463. Care of the Critically Ill Child Practicum. 4 Hours.
Designed to accompany NRSG 6267, this course focuses on providing the student with clinical learning experiences in the coordination and delivery of critical care to infants, children, adolescents, and young adults and their families within the context of their culture and urban community. The goal of continued clinical practice experiences across settings and continuum of acuity care is to facilitate the development of knowledge and attitudinal competencies and skills in the delivery of care to children with a focus on critical health issues. Requires students to practice in the clinical setting a minimum of twenty hours per week.

NRSG 6480. Psychiatric Practicum across the Life Span 1. 5 Hours.
Provides clinical experience with individuals and families throughout the life span in a psychiatric mental health setting in the advanced practice nursing role. Includes a didactic seminar that focuses on assessment of psychopathology and mental health, psychodiagnostic history taking, mental status evaluation, differential diagnosis, and treatment for various aged diverse clients. Requires students to develop a caseload, and to practice in the clinical setting a minimum of twenty hours per week with an agency preceptor. Integration of theory and practice is emphasized, utilizing the data from the students’ clinical placement as they apply to the specific diagnoses presented in clinical work. Also requires students to draft a needs assessment proposal to be completed in NRSG 6481.

NRSG 6481. Psychiatric Practicum across the Life Span 2. 5 Hours.
Continues NRSG 6480. Provides clinical experiences with individuals and families throughout the life span in a mental health setting. Requires students to continue to treat a caseload of clients and to practice a minimum of twenty hours per week with an agency preceptor. The focus is on planning and providing care, utilizing various treatment modalities, applying theoretical frameworks, prevention of psychiatric problems and promotion of mental health, group process, termination issues, and evaluation of clients’ progress. Clinical cases provide the basis for discussion in didactic seminar. Requires students to complete the activity proposed in NRSG 6480 to meet an identified need in their community or clinical setting.

NRSG 6510. Nursing Leadership Role Practicum 1. 3 Hours.
Offers students an opportunity to engage in a mentored nurse leadership role within a complex healthcare system. Using the AONE Nursing Leadership Competencies (2006; 2011) as a guiding framework, emphasizes developing all aspects of the leadership role and practice at the micro- and mesosystem levels with an aggregate population focus (long-term community care, school health, acute care, etc.) in a team-based care environment. Focuses on integrating systems thinking and evidence-based leadership practices when collaborating with the preceptor in current organizational and patient care issues. Students reflect on leadership experiences and emerging issues in leading and managing healthcare delivery in diverse, technical, and dynamic environments. Requires students to practice in a clinical setting for eight hours per week.

NRSG 6520. Nursing Leadership Role Practicum 2. 3 Hours.
Continues NRSG 6510. Continuing to work directly with a nursing leader preceptor in a complex health care system, offers students an opportunity for a concentrated experience implementing the multifaceted role of the nurse leader by expanding their focus to include responsibility for the strategic and daily operation of nursing services. Emphasizes strengthening the student’s abilities strategically to manage interpersonal relationships effectively and to convene, participate in, and lead healthcare teams. Focuses on relational skill building, such as negotiation, conflict resolution, coaching, and evaluating. Concurrent seminars focus on an array of issues surrounding the role of the nurse leader as well as team-building skills. Requires students to practice in a clinical setting for eight hours per week.

NRSG 6530. Nurse Anesthesia Practicum 1. 2 Hours.
Offers clinical learning opportunities designed to enable the student to develop an anesthesia plan and, with supervision, participate in the implementation of that plan.

NRSG 6534. Nurse Anesthesia Practicum 2. 4 Hours.
Seeks to provide students with the opportunity to apply theoretical concepts in clinical settings. With supervision, students are expected to determine the appropriate sequencing and timing of emergence and postanesthesia management of the patient. Requires students to practice in the clinical setting approximately thirty-six hours per week.

NRSG 6535. Nurse Anesthesia Practicum 3. 4 Hours.
Seeks to provide an in-depth clinical learning experience of advanced nurse anesthesia in specialty areas. Emphasizes increasingly independent integration of scientific principles to clinical practice and evaluation of patient outcomes and professional role development. Requires students to practice in the clinical setting approximately thirty-six hours per week.

NRSG 6540. Advanced Clinical Experiences in Nurse Anesthesia 1. 1 Hour.
Offers initial integration and synthesis course of advanced knowledge and skills for interdisciplinary anesthesia nursing care for complex problems and conditions across the life span. Selected topics and clinical case studies include collaborative decision making, effective communication, and root cause/adverse event analysis. With moderate guidance, students are expected to assume greater responsibility in planning and evaluation of anesthesia care. Requires students to practice in the clinical setting approximately thirty-six hours per week.

NRSG 6541. Advanced Clinical Experiences in Nurse Anesthesia 2. 1 Hour.
Offers second integration and synthesis course of advanced knowledge and skills for interdisciplinary anesthesia nursing care for complex problems and conditions across the life span. Selected topics and clinical case studies include collaborative decision making, effective communication, and root cause/adverse event analysis. With moderate guidance, students are expected to assume greater responsibility in planning and evaluation of anesthesia care. Requires students to practice in the clinical setting approximately thirty-six hours per week.

NRSG 6542. Advanced Clinical Experiences in Nurse Anesthesia 3. 1 Hour.
Offers third and final integration and synthesis course of advanced knowledge and skills for interdisciplinary anesthesia nursing care for complex problems and conditions across the life span. Selected topics and clinical case studies include collaborative decision making, effective communication, and root cause/adverse event analysis. With minimal guidance, students are expected to assume greater responsibility in planning and evaluation of anesthesia care. Requires students to practice in the clinical setting approximately thirty-six hours per week.

NRSG 6580. Nurse Anesthesia Clinical Practicum—Advanced. 0 Hours.
Offers students an opportunity to obtain further supervised clinical experience and to enhance clinical skills. Requires students to practice in the clinical setting a minimum of twenty hours per week. Restricted to USAGPAN students only.

NRSG 6864. Professional Preparation Seminar. 0 Hours.
Seeks to prepare the newly graduated BSN student to take necessary steps for entry into the professional nursing role and workforce prior to beginning master’s specialization. Focuses on strategies for the transition from student nurse to professional nurse.

NRSG 6962. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.
NRSG 6964. Co-op Work Experience. 0 Hours.
Provides eligible students with an opportunity for work experience. May be repeated without limit.

NRSG 7100. Leadership in Advanced Practice Nursing. 3 Hours.
Seeks to provide a solid foundation for providing leadership. Analyzes the principles of transformational leadership and organizational behavior pertinent to healthcare systems. Seeks to prepare nursing leaders at the practice doctorate level to use critical thinking skills and evidence-based decision making to effect systems and organizational change. Discusses leadership skills and characteristics of leadership styles within the broader framework of interprofessional collaboration and innovations in healthcare delivery. Presents information from a variety of disciplines and perspectives (legal, fiscal, ethical, cultural, and political) for purposes of improving quality of care for patients, populations, and communities in healthcare settings across the continuum of care. Restricted to students enrolled in the Doctorate of Nursing Practice Program only.

NRSG 7104. Foundations in Nursing Research. 3 Hours.
Addresses the development of nursing science with specific emphasis on the importance of developing theory-based research. Includes a broad review of the various types of research studies (e.g., descriptive, causal, and relational); the steps of the research process; and the related analytic strategies and/or issues associated with each type of research study. Also reviews the guidelines for conducting critical literature reviews (i.e., systematic or meta-analyses) and how the results are used to determine the type of research study to employ. Discusses the scientific principles and integrity related to the conduct of responsible research and the means for assuring ethical integrity of research on human subjects.

NRSG 7105. Translating Research Evidence into Practice. 3 Hours.
Offers opportunities for students to examine strategies and tools for retrieval, compilation, critical appraisal, and application of empirical, reflective, and practice-based information to improve quality of care and health outcomes for populations of interest. Uses systematic reviews, case studies emphasizing use of quality improvement methods, clinical guidelines, collaborative interprofessional practice networks, and information technology. Includes program evaluation strategies and interpretation of biostatistical concepts relevant to population-based advanced practice. Offers students an opportunity to explore techniques that support their professional presence and voice as a leader. This course meets the requirements of the following DNP Essentials of Doctoral Education for Advanced Practice Nursing: (1): Scientific Underpinnings for Practice; (3): Clinical Scholarship and Analytical Method for Evidence-Based (AACN, 2006).

NRSG 7110. Evidence-Based Practice Research Application. 2 Hours.
Offers graduate nursing students an opportunity to work singly or in groups of two with an experienced researcher in an area related to their clinical specialization or other professional interest. The student’s individual contribution depends on the stage of the research project and is determined jointly by the student, faculty liaison, and researcher. Evaluation includes the student’s individual effort, participation in the collaborative research process, and appraisal of the learning experience as a research assistant. By participating in an established, scientifically significant project, offers students an opportunity to actively experience the “real-life” aspects of conducting research and to be socialized to the role of the researcher.

NRSG 7400. Nurse Anesthesia Clinical Practicum 1. 5 Hours.
Constitutes an introductory doctoral-level clinical anesthesia course that offers the novice student registered nurse anesthetist (SRNA) an opportunity to gain supervised clinical experience in the preparation, administration, and management of anesthesia in patients undergoing surgical procedures or requiring pain management. Offers students an opportunity to begin to incorporate didactic (Phase 1) knowledge into providing anesthesia care of all forms to patients across the life span and to apply American Society of Anesthesiologists (ASA) physical status classification. The students receive extensive mentoring and direction with the goal of becoming safe, novice SRNAs able to accept increased independence and responsibility. Restricted to USAGPAN students only.

NRSG 7403. Nurse Anesthesia Clinical Practicum 2. 5 Hours.
Constitutes an introductory doctoral-level clinical anesthesia course that offers the advanced-beginner student registered nurse anesthetist (SRNA) an opportunity to gain supervised clinical experience in the preparation, administration, and management of anesthesia in patients undergoing surgical procedures. Offers students an opportunity to continue to incorporate didactic (Phase 1) knowledge into providing anesthesia care of all forms to patients across the life span and to apply American Society of Anesthesiologists (ASA) physical status classification. The SRNA continues to receive extensive mentoring and direction and is expected to demonstrate performance consistent with the advanced beginner and not at the level of a novice nursing anesthesia student. Restricted to USAGPAN students only.

NRSG 7406. Nurse Anesthesia Clinical Practicum 3. 5 Hours.
Constitutes an introductory doctoral-level clinical anesthesia course that offers the senior student registered nurse anesthetist (SRNA) an opportunity to gain supervised clinical experience with reduced levels of supervision in the preparation, administration, and management of anesthesia in patients undergoing surgical procedures. Expects students to incorporate the science of anesthesia (i.e., didactic knowledge) and evidence-based practice as found in the anesthesia literature into providing anesthesia care of all forms to patients across the life span and to apply American Society of Anesthesiologists (ASA) physical status classification. The SRNA continues to receive mentoring and direction and is expected to demonstrate performance consistent with the competent anesthesia provider and not at the level of an advanced-beginner nursing anesthesia student. Restricted to USAGPAN students only.

NRSG 7409. Nurse Anesthesia Clinical Practicum 4. 5 Hours.
Constitutes an advanced doctoral-level clinical anesthesia course that offers the senior student registered nurse anesthetist (SRNA) an opportunity to gain clinical experience with minimal supervision in the preparation, administration, and management of anesthesia in patients undergoing surgical procedures. Expects students to incorporate the science of anesthesia (i.e., didactic knowledge) and evidence-based practice as found in the anesthesia literature into providing anesthesia care of all forms to patients of all ages and health status. The SRNA continues to receive mentoring and direction as necessary, is expected to demonstrate performance consistent with the competent anesthesia provider, and have the ability to function independently as a CRNA in a military and/or Department of Defense (DOD) facility or deployed environment. Restricted to USAGPAN students only.
NRSG 7412. Nurse Anesthesia Role Development 1. 6 Hours.
Constitutes an introductory doctoral-level course that offers the novice student registered nurse anesthetist (SRNA) an opportunity to continue supervised clinical experience while developing the skills necessary to function as a professional clinician and member of a military/Department of Defense (DOD) healthcare system. Focuses on developing anesthesia providers capable of functioning as the sole anesthesia provider in potentially austere environments. The role of a DOD-certified registered nurse anesthetist requires a high level of leadership, communication and interpersonal skills, collaboration with the surgical team, and unwavering independence. Seeks to facilitate a broad vision of the military surgical mission with a focus on high-quality care, patient outcomes, and improvement of safety through system processes. Restricted to USAGPAN students only.

NRSG 7415. Nurse Anesthesia Role Development 2. 6 Hours.
Constitutes an introductory doctoral-level course that offers the novice student registered nurse anesthetist (SRNA) an opportunity to continue supervised clinical experience while developing the skills necessary to function as a professional clinician and member of a military/Department of Defense (DOD) healthcare system. Focuses on developing anesthesia providers capable of functioning as the sole anesthesia provider in potentially austere environments. The role of a DOD-certified registered nurse anesthetist requires a high level of leadership, communication and interpersonal skills, collaboration with the surgical team, and unwavering independence. Seeks to facilitate a broad vision of the military surgical mission with a focus on high-quality care, patient outcomes, and improvement of safety through system processes. Restricted to USAGPAN students only.

NRSG 7418. Nurse Anesthesia Role Development 3. 6 Hours.
Constitutes a doctoral-level course that offers the senior student registered nurse anesthetist (SRNA) an opportunity to continue clinical experience while developing the skills necessary to function as a professional clinician and member of a military/Department of Defense (DOD) healthcare system. Focuses on developing anesthesia providers capable of functioning as the sole anesthesia provider in potentially austere environments. The role of a DOD-certified registered nurse anesthetist requires a high level of leadership, communication and interpersonal skills, collaboration with the surgical team, and unwavering independence. Seeks to help refine the professional role of the SRNA and facilitate a broad vision of the military surgical mission with a focus on high-quality care, patient outcomes, and improvement of safety through system processes. Restricted to USAGPAN students only.

NRSG 7421. Nurse Anesthesia Role Development 4. 6 Hours.
Constitutes an advanced doctoral-level course that offers the senior student registered nurse anesthetist (SRNA) an opportunity to continue clinical experience while refining the skills necessary to function as a professional clinician and member of a military/Department of Defense (DOD) healthcare system. Focuses on developing anesthesia providers capable of functioning as the sole anesthesia provider in potentially austere environments. Requires a high level of leadership, communication and interpersonal skills, collaboration with the surgical team, and unwavering independence. Seeks to help refine the professional role of the SRNA. Challenges SRNAs to set the example as professional doctoral-level anesthesia students and assist (to the extent possible) in mentoring the junior SRNAs in their professional/clinical roles. Restricted to USAGPAN students only.

NRSG 7500. Role/Practice Issues in Nurse Anesthesia. 3 Hours.
Analyzes new developments and current trends in nurse anesthesia practice, education, and research. Includes the historical, legal, legislative, and professional role issues associated with advanced practice anesthesia nursing. Emphasizes professional responsibilities, ethical issues, diversity, cultural competency, quality assurance, continuing education, and professional involvement. Emphasizes the historical events that have impacted the development of both the profession and the organizational structure of the American Association of Nurse Anesthetists (AANA). Discusses professional standards established by the organization. Reviews other agencies, at the federal and state levels, that affect the legal recognition of CRNA practice. Presents an overview of the educational accreditation process and certification.

NRSG 7503. Pharmacotherapeutics in Anesthesia. 3 Hours.
Designed to help the DNP student in anesthesia develop an understanding of the pharmacologic principles and associated application to clinical anesthesia and critical care advance practice nursing. Reviews the basic principles of the pharmacokinetics and pharmacodynamics of commonly used drugs in anesthesia and critical care. The prescription, administration, and monitoring of medications for the critically ill and patients undergoing anesthesia serves as the organizing framework for the course. Content includes the most common agents and classes of drugs prescribed for the critically ill and patients undergoing anesthesia, the signs and symptoms of drug toxicity, and interventions utilized to resolve adverse drug reactions.

NRSG 7506. Applied Chemistry, Physics, and Cardiopulmonary Physiology of Anesthesia. 3 Hours.
Designed to help the DNP student in anesthesia to integrate nursing science with basic biophysical sciences and to prepare for the highest level of advanced nursing practice in the specialty of anesthesia. Offers students an opportunity to correlate biochemical and physics principles as they apply to the physiology, pathophysiology, and pharmacology of anesthesia nursing. Also provides in-depth discussion and integration of the knowledge related to the principles of chemistry, physics, and pharmacology of general anesthesia. Emphasizes the physiological mechanisms related to operation and regulation of the cardiopulmonary system. Discusses physiological information mostly related to anesthesia.

NRSG 7509. Advanced Concepts in Nurse Anesthesia Practice. 3 Hours.
Focuses on the pharmacodynamic, pharmacokinetic, and physiologic principles related to the delivery of anesthetics and adjunctive drugs in advanced nurse anesthesia practice. Emphasizes pharmacologic management of patients with complex health problems, including multisystem failure and multidrug therapy. Studies anesthetic management for extensive surgeries performed on adults and children to develop safe intra-operative and perioperative care plans. Covers integration of pharmacological data, anesthesia administration, monitoring technology, and comprehensive advanced nursing care to return patients to their optimal state of health. Includes an overview of pain and regional anesthesia with an emphasis on anesthetic indications, management, and complications. Presents fundamental principles governing obstetrical anesthesia, emphasizing normal physiological changes associated with pregnancy, anesthetic considerations, complications inherent in pregnancy, and approaches to anesthesia.
NRSG 7511. Applied Gross Anatomy and Physiology of Anesthesia. 3 Hours.
Designed to help the DNP student in anesthesia to develop the fundamental knowledge and skills necessary for entry into advanced practice anesthesia nursing. Emphasizes study of the head and neck (multiorgan systems including the nervous system) and the back, including the spinal cord, the thorax (with focus on the respiratory and cardiovascular systems), the abdomen, pelvis, and extremities. Companion laboratory periods, during which students examine the same region in a prossected human cadaver, follow lectures. Presents ultrasound, radiography, computer tomograms (CT scans), and magnetic resonance images (MRIs) of normal and diseased organs in lectures and labs to emphasize the importance of integrating the principles of anatomical knowledge in understanding the human body in health and disease.

NRSG 7520. Conceptual Basis of Nurse Anesthesia Practice 1. 3 Hours.
Aims to help the DNP student in anesthesia to develop the fundamental knowledge and skills necessary for entry into advanced practice anesthesia nursing. Areas of focus include patient assessment, essential anesthesia techniques, monitoring and equipment, pharmacologic interventions, development of case/disease-specific anesthesia management plans, cultural competence, and safe practice across the life span. This is the first course in the nurse anesthesia program conceptual basis of practice clinical series.

NRSG 7523. Conceptual Basis of Nurse Anesthesia Practice 2. 3 Hours.
Aims to help the DNP student in anesthesia to develop foundational skills in the management of highly specialized problems and conditions requiring anesthesia or surgical interventions. Key concepts include patient assessment, evaluation, and differential diagnosis. Offers students an opportunity to demonstrate the ability to plan and implement anesthesia care and pharmacologic interventions for patients with disorders of the cardiovascular and pulmonary systems across the life span. This is the second course in the nurse anesthesia program conceptual basis of practice clinical series.

NRSG 7526. Conceptual Basis of Nurse Anesthesia Practice 3. 3 Hours.
Designed to help the DNP student in anesthesia engage in integration of the knowledge and skills associated with highly specialized problems and conditions requiring anesthesia or surgical interventions. Offers students an opportunity to demonstrate the ability to conduct well-informed discussion concerning physiology and pathophysiology of the nervous, endocrine, renal, and hepatic systems. Key competencies include conducting focused assessment, anesthetic planning, and selection of pharmacologic interventions for patients with disorders of the nervous, endocrine, renal, and hepatic systems across the life span. This is the third course in the nurse anesthesia program conceptual basis of practice clinical series.

NRSG 7530. Nurse Anesthesia Practicum 1. 2 Hours.
Offers the DNP student in anesthesia an opportunity for experiential integration and synthesis of basic knowledge and skills for anesthesia nursing care. Selected topics and clinical case plans reinforce the principles of collaborative decision making, effective communication, cultural sensitivity, use of equipment and techniques, use of evidence, planning for routine and emergent events, and evaluation of various conditions for patients across the life span. Students have an opportunity to demonstrate achievement of entry-level practice skills by the end of the course.

NRSG 7533. Nurse Anesthesia Practicum 2. 4 Hours.
Offers the DNP student in anesthesia an opportunity to apply theoretical concepts and skills obtained in the lab to the clinical setting. With supervision, students create a plan of care for induction, maintenance, emergence, and postanesthesia. Offers students an opportunity to enhance these skills through clinical experiences, lab skills development, and seminar discussions.

NRSG 7536. Nurse Anesthesia Practicum 3. 4 Hours.
Aims to help the DNP student in anesthesia to refine and enhance their growing anesthesia knowledge and skill. Students progress under supervision at clinical sites to more independent management of basic cases and begin exposure to complex and specialty cases. Seminars meet to discuss issues related to complex clinical practice with emphasis on patients with cardiac disease, cardiac anesthesia, management of critically ill patients, glycemic management, blood management, coagulation management, cerebral oximetry, and renal protection.

NRSG 7540. Advanced Clinical Experiences in Nurse Anesthesia 1. 1 Hour.
Aims to help the DNP student in anesthesia to begin development of advanced skills and to integrate comprehensive cumulative knowledge into anesthesia and perioperative care for complex patients having major and specialty surgery across the life span. Focuses on patient-centric care and includes development of an understanding of how nurse anesthetists can deliver high-quality care to improve patient outcomes and the safety environment adherence to individual and systemic safety processes. Students incorporate didactic knowledge into developing anesthesia management plans for patients across the acuity and age continuum. With continual guidance, offers students an opportunity to assume increasing responsibility for more care of increasingly complex patients and surgical procedures.

NRSG 7543. Advanced Clinical Experiences in Nurse Anesthesia 2. 2 Hours.
Mentors students to develop skills in crisis management, patient safety, and independent anesthetic management. The role of the senior SRNA demands demonstration of leadership, interprofessional communication, collaboration, and use of resources in all settings and situations, including crisis events. Students integrate information from prior classroom and clinical experiences into individualized plans of care for all ages and complexity of patients.

NRSG 7546. Advanced Clinical Experiences in Nurse Anesthesia 3. 2 Hours.
Aims to help the DNP student in anesthesia to utilize knowledge and skill gained during increasingly complex clinical experiences to refine the skills necessary to function as an independent professional clinician and member of the healthcare system. Designed to support integration and synthesis of advanced knowledge and skills for interdisciplinary anesthesia nursing care of patients across the life span who have complex health problems and who are undergoing a wide range of surgical procedures. Selected topics and clinical case studies focus on higher-level professional skills, including collaborative decision making, utilization of evidence to inform practice, and effective communication. With minimal guidance, students assume greater responsibility in planning, implementing, and evaluating anesthesia care.
NRSG 7700. The Science of Nursing. 3 Hours.
Introduces basic concepts in philosophy of science and the development of knowledge. Explores the historical development and themes for knowledge building in nursing and healthcare. Offers students an opportunity to analyze different ways of knowing and world views as they relate to the development of programs of research in nursing. Content from this course is applied to each student’s area of research interest. The examination of the scientific literature, identification of gaps in knowledge, and the development of research questions are completed to begin the process of developing a research plan.

NRSG 7705. Theoretical and Conceptual Foundations in Nursing Science. 3 Hours.
Examines the nature of nursing science by critically analyzing the current relevance of nursing theories and conceptual models to the advancement of nursing’s scientific development. Emphasizes various approaches to concept/theory development, analysis, and synthesis. Exppects students to develop skills in concept/theory analysis and synthesis and to apply these skills to a formal analysis of concept relevant to their phenomena of interest. Students who do not meet course prerequisites may seek permission of instructor.

NRSG 7709. Qualitative Research Methods. 3 Hours.
Examines published qualitative research in nursing and related disciplines. Emphasizes major strategies of qualitative inquiry, including ethnography, grounded theory, phenomenology, narrative inquiry, and case study. Offers students an opportunity to begin to develop mastery in critiquing qualitative research, ethical issues, data analysis techniques, and proposal development.

NRSG 7712. Quantitative Research Methods. 3 Hours.
Introduces different types of quantitative research methods as they relate to investigation of phenomena in nursing and healthcare. Begins with a focus on defining research problems, theory testing, and causal inference, then explores a range of research designs and methodologic techniques that are available for empirical research. Quantitative techniques include sampling, data collection, analysis, and interpretation.

NRSG 7715. Measurement in Clinical Research. 3 Hours.
Examines the concepts of measurement, sources of measurement error, control, and instrumentation as they relate to variables in clinical research. Students have an opportunity to explore the procedural aspects of measurement, criterion-referenced and norm-referenced measures, as well as the reliability and validity of measurement techniques. Discusses methods and statistical procedures used in instrument design and testing, such as instrument blueprints, factor analysis, and item response theory. Emphasizes the measurement of variables to evaluate the effectiveness of clinical interventions.

NRSG 7750. Healthcare of Urban Populations. 3 Hours.
Provides students with an opportunity to explore the body of urban health research to identify key themes, conceptual foundations, and contemporary research findings. Examines integration of cultural and community contextual factors that affect the health status of urban populations. These include racial, ethnic, and economic health disparities; influences of the urban physical environment and the urban social environment; and the availability of and access to health and social services. Studies the influence of concepts such as vulnerability, underserved, culture, ethnicity, poverty, discrimination, disparities in healthcare, urbanization, diversity, social determinants of health, environmental justice, and migration on health status.

NRSG 7755. Intervention Research: Development, Implementation, and Evaluation. 3 Hours.
Examines theory-based intervention research for individuals, groups, populations, and systems. Offers an overview of the types of theory-based interventions across the health spectrum. Reviews the development and testing of theory-based interventions. Emphasizes understanding the strengths and challenges of integrating technology across the development, testing, and implementation of a theory-based intervention. Also emphasizes the selection of existing interventions, the process of adaption, and the valid and reliable execution of the selected theory-based intervention by examining such issues as treatment, fidelity, intervention duration, context, and interventionist expertise. Compares and contrasts intervention research developed for efficacy, effectiveness, and implementation. Restricted to students enrolled in a PhD program or with permission of instructor.

NRSG 7770. Research Colloquium. 1 Hour.
Offers doctoral students an opportunity to explore in-depth key concepts in nursing and healthcare research. Led by a faculty expert, offers students an opportunity to engage in meaningful dialogue and analysis to examine the concept from multiple perspectives. May be repeated up to four times.

NRSG 7920. The Steps to Practice Inquiry: Analyze, Evaluate, Synthesize, and Apply the Evidence. 3 Hours.
Designed as a complement to NRSG 7105 or equivalent. Offers students an opportunity to obtain skills and competencies needed for a practice doctorate—ability to generate new knowledge from practice, evaluate current practice approaches, analyze current knowledge, and adapt/translate knowledge into usable clinical strategies that improve practice and lead to better outcomes.

NRSG 7921. DNP Scholarly Project 1: Design and Ethical Consideration of Practice Application. 3 Hours.
Reflects the culmination of practice inquiry, knowledge, and competencies attained during the Doctorate of Nursing Practice program. In this seminar, students are mentored through the process of evidence-based project development, including formulation of goals and objectives; refinement of project design and implementation strategies; and development of tools and/or forms for data collection, identification of resources (personnel and fiscal), ethical review, and evaluation. Offers students an opportunity to participate in a process of peer consultation and critique in support of project refinement. Requires a minimum total of 250 scholarly practice hours.

NRSG 7922. DNP Scholarly Project 2: Applying Practice Knowledge—Implementation/Outcomes. 3 Hours.
Reflects the culmination of practice inquiry, knowledge, and competencies attained during the Doctorate of Nursing Practice program. In this seminar, students are guided through the process of completing an evidence-based project. Emphasizes the acquisition of reflective practice skills and competencies needed to assess and implement evaluation of evidence and outcomes. Requires a minimum total of 250 scholarly practice hours.

NRSG 7923. DNP Scholarly Project 3: Dissemination of Practice Inquiry. 3 Hours.
Reflects the culmination of practice inquiry, knowledge, and competencies attained during the Doctorate of Nursing Practice program. In this seminar, students are guided through the process of summarizing and disseminating the results of the project. Requires a minimum total of 250 scholarly practice hours.
NRSG 7924. Applied Epidemiology for Advanced Nursing. 3 Hours.
Examines the scientific foundations integral to the competencies outlined in the Essentials of Doctoral Education for Advanced Nursing Practice (2006). Course content and accompanying practice opportunities, grounded in clinical prevention and population health, seek to enable students to analyze epidemiological, biostatistical, occupational, and environmental data in the development, implementation, and evaluation of clinical prevention and population health. Emphasizes current concepts of public health, health promotion, evidence-based recommendations, determinants of health, environmental/occupational health, and cultural diversity and sensitivity needed to guide advanced nursing practice. In addition, emerging knowledge regarding infectious diseases, emergency/disaster preparedness, and intervention frame the exercises and practice opportunities focused on clinical prevention and population health.

NRSG 7925. Health Policy and Advocacy. 3 Hours.
Examines the scientific foundations integral to meeting the competencies outlined in The Essentials of Doctoral Education for Advanced Nursing Practice (2006). Seeks to provide students with the knowledge and opportunity to develop skills and competencies essential to assuming leadership roles in the development of health policy. Contrasts the major contextual factors and policy triggers that influence health policymaking at the various levels. Exercises are aimed at developing skill in the design, implementation, and advocacy for healthcare policy to address issues of social justice and equity in healthcare. Additionally, the course integrates practice experiences with two additional skill sets—the ability to analyze the policy process and the ability to engage in politically competent action.

NRSG 7976. Directed Study. 1-4 Hours.
Allows PhD students to develop an individual plan to attain specific knowledge related to research goals or specific research technique/approach. May consist of library study and reading, preparation of scholarly presentation or publication, mentored research experience, or other appropriate activity as approved by professor and academic advisor. May be repeated without limit.

NRSG 9000. Comprehensive Exam. 0 Hours.
Indicates successful completion of the doctoral comprehensive exam.

NRSG 9845. Dissertation Seminar 1. 3 Hours.
Guides students through the beginning of the research process as they prepare their dissertation proposals, including writing the literature review and outlining the research design for their projects. Students have an opportunity to work with their dissertation advisors both individually and in small groups.

NRSG 9846. Dissertation Seminar 2. 3 Hours.
Provides students with an opportunity to finalize their dissertation proposals and make the necessary arrangements to begin their investigations by completing the design and methods and obtaining Investigative Review Board approval. Students have an opportunity to work with their dissertation advisors both individually and in small groups.

NRSG 9984. Research. 1-4 Hours.
Offers an opportunity to conduct research under faculty supervision. May be repeated without limit.

NRSG 9990. Dissertation. 1 Hour.
Offers research/experimental work for PhD thesis on a full-time basis. Restricted to Doctoral candidacy students only. May be repeated once.

NRSG 9996. Dissertation Continuation. 0 Hours.
Offers continuation of PhD dissertation research. May be repeated up to 15 times.