

Graduate School of Nursing

MSN Curricula and Course Descriptions

Curriculum Grids

- Family Nurse Practitioner
- Nurse Anesthesia
- Perioperative CNS

Course Descriptions

- Core Courses
- FNP Courses
- Nurse Anesthesia Courses
- Perioperative CNS Courses

**Curriculum for the Family Nurse Practitioner Program
For Class 2004-2006**

Semester 1 (Summer 1st Year)		
Course #	Course Name	Credits
GSN 53013	Applied Anatomy and Cell Biology for Advanced Clinical Decision-Making	3
GSN 51023	Advanced Health Assessment	3
GSN 51311	Leadership Role in Interdisciplinary Health Care	1
GSN 51111	Research in Military & Federal Health Systems	1
Total Semester Credits		8
Semester 2 (Fall 1st Year)		
GSN 51033	Applied Physiology for Advanced Nursing Practice	3
GSN 51322	Ethics and Policy in Federal Health Systems	2
GSN 51122	Theoretical Foundations for Military and Federal Health Research Practice	2
GSN 51044	Applied Pharmacology for Advanced Nursing Practice	4
FNP 62015	Advanced Principles of Adult Primary Care	5
GSN 76121	Research and Scholarship	1
	Operational Readiness Seminars	
Total Semester Credits		16
Semester 3 (Spring 1st Year)		
GSN 51053	Applied Pathophysiology for Advanced Nursing Practice	3
GSN 51332	Leadership and Management in a Global Environment	2
GSN 51132	Statistical Measures and Analytic Methods to Build Evidence for Military and Federal Health Care / Practice	2
FNP 62025	Advanced Principles in Pediatric Primary Care	5
FNP 61033	Integration and Application of Family Theory in Primary Care	3
GSN 76131	Research and Scholarship	1
	Operational Readiness Seminars	
Total Semester Credits		15

Semester 4 (Summer 2nd Year)		
FNP 62045	Advanced Principles in Primary Care of Women	5
GSN 7621(0-1)	Research and Scholarship	0-1
Total Semester Credits		5-6
Semester 5 (Fall 2nd Year)		
FNP 72114	Clinical Practicum and Seminar for Nurse Practitioner Practice I	4
GSN 7621(1-2)	Research and Scholarship	1-2
One of the following courses will be taken in Semester 5 and the other in Semester 6		
TBD	Military Contingency Medicine/Bushmasters: Section A	6
FNP 74131	Clinical Specialty Practicum for Nurse Practitioner Practice: Section A	1
Total Semester Credits		6-7 or 11-12
Semester 6 (Spring 2nd Year)		
FNP 72124	Clinical Practicum and Seminar for Nurse Practitioner Practice II	4
GSN 7621(1-2)	Research and Scholarship	1-2
One of the following courses will be taken in Semester 5 and the other in Semester 6		
MM04001	Military Contingency Medicine/Bushmasters: Section B	6
FNP 74131	Clinical Specialty Practicum for Nurse Practitioner Practice: Section B	1
Total Semester Credits		6-7 or 11-12
Total Program Credits		65

Curriculum for the Nurse Anesthesia Program
Class 2003-2005

Semester 1 (Summer 1st Year)		
Course #	Course Name	Credits
GSN 53013	Applied Anatomy and Cell Biology for Advanced Clinical Decision-Making	3
RNA 63011	Applied Neuroscience I	1
GSN 51021	Advanced Health Assessment	1
RNA 53411	Advanced Health Assessment: Clinical Correlates for Nurse Anesthetists	1
GSN 51311	Leadership Role in Interdisciplinary Health Care	1
GSN 51111	Research in Military & Federal Health Systems	1
Total Semester Credits		8
Semester 2 (Fall 1st Year)		
GSN 51033	Applied Physiology for Advanced Nursing Practice	3
GSN 51322	Ethics and Policy in Federal Health Systems	2
GSN 51122	Theoretical Foundations for Military and Federal Health Research Practice	2
GSN 76121	Research and Scholarship	1
RNA 61033	Applied Biochemistry for Nurse Anesthesia	3
RNA 63021	Applied Neuroscience II	2
RNA 63045	Basic Anesthetic and Pharmacologic Principles of Anesthesia	5
Total Semester Credits		18
Semester 3 (Spring 1st Year)		
GSN 51053	Applied Pathophysiology for Advanced Nursing Practice	3
GSN 51132	Statistical Measures and Analytic Methods to Build Evidence for Military and Federal Health Care / Practice	2
RNA 61065	Medical Pharmacology for Nurse Anesthetists	5
RNA 63055	Advanced Principles of Anesthesia	5
RNA 61071	Clinical Pharmacology for Nurse Anesthetists	1
GSN 76131	Research and Scholarship	1

Total Semester Credits		17
Semester 4 (Summer 2nd Year)		
RNA 72111	Clinical Practice and Seminar for Nurse Anesthesia Practice I	1
GSN 7621 (0-1)	Research and Scholarship	0-1
Total Semester Credits		1-2
Semester 5 (Fall 2nd Year)		
RNA 72112	Clinical Practice and Seminar for Nurse Anesthesia Practice II	1
GSN 7621 (1-2)	Research and Scholarship	1-2
Total Semester Credits		2-3
Semester 6 (Spring 2nd Year)		
RNA 72113	Clinical Practice and Seminar for Nurse Anesthesia Practice III	1
GSN 7621 (1-2)	Research and Scholarship	1-2
Total Semester Credits		3
Semester 7 (Summer 3rd Year)		
RNA 72114	Clinical Practice and Seminar for Nurse Anesthesia Practice IV	1
Total Semester Credits		1
Semester 8 (Fall 3rd Year)		
RNA 72115	Clinical Practice and Seminar for Nurse Anesthesia Practice V	1
Total Semester Credits		1
Total Program Credits		53

**Curriculum for the Perioperative Clinical Nurse Specialists Program
Class 2004-2006**

Semester 1 (Summer 1st Year)		
Course #	Title	Credits
GSN 53013	Applied Anatomy and Cell Biology for Advanced Clinical Decision-Making	3
GSN 51023	Advanced Health Assessment	3
GSN 51311	Leadership Role in Interdisciplinary Health Care	1
GSN 51111	Research in Military & Federal Health Systems	1
Total Semester Credits		8
Semester 2 (Fall 1st Year)		
GSN 51033	Applied Physiology for Advanced Nursing Practice	3
GSN 51322	Ethics and Policy in Federal Health Systems	2
GSN 51122	Theoretical Foundations for Military and Federal Health Research Practice	2
PCS 62013	Standards, Quality and Safety for Perioperative CNS Practice I	3
GSN 51044	Applied Pharmacology for Advanced Nursing Practice	4
GSN 76121	Research and Scholarship	1
	Operational Readiness Seminars	
Total Semester Credits		15
Semester 3 (Spring 1st Year)		
GSN 51053	Applied Pathophysiology for Advanced Nursing Practice	3
GSN 51332	Leadership and Management in a Global Environment	2
PCS 62023	Standards, Quality and Safety for Perioperative CNS Practice II	3
GSN 51132	Statistical Measures and Analytic Methods to Build Evidence for Military and Federal Health Care / Practice	2
PCS 62033	Health Care Resource Management (formerly know as Leadership and Health Care Resource Management)	3
GSN 76131	Research and Scholarship	1
	Operational Readiness Seminars	
Total Semester Credits		14

Intercession May 2005		
PCS 61041	Advanced Principles for Perioperative Management I (formerly part of PCS 62045 - Advanced Principles for Perioperative CNS Practice)	1
Semester 4 (Summer 2nd Year)		
PCS 61051	Advanced Principles for Perioperative Management II (formerly part of PCS 62045 - Advanced Principles for Perioperative CNS Practice)	1
GSN 7621(0-1)	Research and Scholarship	0-1
MM04001	Military Contingency Medicine/Bushmaster	6
Total Semester Credits (including the intercession)		7-8
Semester 5		
PCS 61063	Advanced Principles for Perioperative Management III (formerly part of PCS 62045 - Advanced Principles for Perioperative CNS Practice)	3
PCS 72113	Clinical Practicum and Seminar for Perioperative CNS Practice I	3
GSN 7621(1-2)	Research and Scholarship	1-2
Total Semester Credits		7-8
Semester 6		
PCS 72124	Clinical Practicum and Seminar for Perioperative CNS Practice II	4
GSN 7621(1-2)	Research and Scholarship	1-2
Total Semester Credits		5-6
Total Program Credits		59

Course Descriptions for Class 2004-2006

MSN Core Courses

**GSN 53013 Applied Anatomy and Cell Biology for
Advanced Clinical Decision-Making 3 Credits**

This foundational didactic and human dissection course is designed to facilitate a thorough understanding of human anatomy. The student will acquire knowledge that will enhance understanding in all subsequent nurse practitioner clinical roles. The course will be presented in several different modalities: pure didactic content, laboratory dissection, and student presentations of anatomic features central to nurse practitioner practice. Students will be introduced to the interrelationships between human biology and the strengths and weaknesses of the human body under stress both physical and psychological. This introductory course will, therefore, be a spring-board to future clinical, as well as, readiness courses taught within the APN curriculum.

GSN 51023 Advanced Health Assessment (FNP CNS) 3 Credits

Advanced Health Assessment is designed to develop and expand the assessment skills necessary for advanced practice registered nurses to excel in their specialty. Advanced health assessment is a required core course for all master's students enrolled in the Graduate School of Nursing (GSN) during the first summer semester. Case study discussions are incorporated to develop communication skills necessary to relay pertinent patient findings to patients and other providers. Variations commonly seen in pediatric and geriatric populations will be highlighted, as well as cultural and racial assessment variants. Operational readiness, patient safety issues, and features unique to the federal health systems will be incorporated into content throughout the course. This course challenges the student's critical thinking and problem solving abilities as they apply to acute and chronic health conditions. Credit hours: 2 credits for Nurse Anesthesia students; 3 credits for Perioperative Clinical Nurse Specialist students; 3 credits for Family Nurse Practitioner students.

GSN 51021 Advanced Health Assessment (RNA) 1 Credit

The health assessment course is a first level didactic and skill component course designed to help the student develop the assessment knowledge and performance foundations necessary for advanced practice roles. Basic health assessment is a foundational course offered to both Family Nurse Practitioners and Nurse Anesthetists during their first 9-week summer semester. Because of the abbreviated time allocated to the course, lecture/labs will be held three or four times each week, for a total of approximately 30 didactic hours and 18 laboratory hours. Health maintenance and disease prevention are considered foundational topics throughout the curriculum. The "Putting Prevention into Practice" (PIIP) will be addressed as appropriate to the topics under discussion. This course challenges the student's critical thinking and problem solving abilities as they apply to acute and chronic health conditions of individuals and their families. The purpose of this course is to refine the student's clinical assessment and documentation skills for use in their first clinical course as advanced practice nurses.

GSN 51311 Leadership Role in Interdisciplinary Health Care 1 Credit

This core course introduces the student to the multiple roles of the advanced practice nurse within the Military, Civilian, and Federal Health Care systems. The professional, political, and cultural components of role are presented, as well as legal issues in advanced practice nursing. Principles of leadership, collaboration, conflict management, negotiation and power as related to the role of the APN within a managed care environment are some of the topics discussed.

GSN 51111 Research in Military and Federal Health Systems 1 Credit

This course emphasizes the conduction of a preliminary review of the literature and identification of a potential research topic for the Scholarly Project. An overview of the research process, as well as the relationship of research to practice – building evidence for practice – is provided. Searching and critique of the literature within the context of evidence-based practice are stressed. Exploration of relevant topics for research is facilitated through multiple venues that include guest researchers, student presentations, and assigned searching of the literature. Identification of potential relevant researchable topics is discussed with faculty and guest researchers.

GSN 51033 Applied Physiology for Advanced Nursing Practice 3 Credits

This APN core course meeting three lecture hours weekly provides the foundation for organ system disease and disorders through a physiologic systems approach. The physical laws and principles of the cardiovascular, pulmonary, gastrointestinal, renal, nervous, endocrine, and reproductive systems are presented emphasizing how these laws and principles can be applied to understanding the mechanisms and complications of disease.

GSN 51322 Ethics and Policy in Federal Health Systems 2 Credits

This core course introduces students to ethical and health care policy issues in federal and military practice. The course examines relationships among social, cultural, political, financial, clinical, and legal factors that influence health care delivery and public policy in the Federal Health Care Systems and in contingency operations. During this course, both ethical and federal health policy issues will be explored. Key ethical principles will be presented as a class topic and elaborated on by the speaker. Political topics will be correlated with health policy and professional development.

At the end of the semester, the student will be familiar with the major ethical principles and will have formulated a system for ethical decision making in their practice. They will also understand the legislative process and how to further their profession through political activity.

GSN 51122 Theoretical Foundations for Military and Federal 2 Credits
Health Research Practice

This course prepares students to critique, conduct, and use nursing research in advanced clinical practice. The students will explore the history of nursing research and build upon their basic knowledge of the research process and the application of research findings in clinical practice. Extensive review and critique of the literature are stressed. Identification of problems and development of relevant research questions are practiced with faculty guidance. Particular emphasis is placed on writing a review of the literature. Sampling, measurement, data collection, and data analysis are discussed. Ethical considerations of informed consent and the conduct of research are clearly articulated throughout the course.

GSN 51044 Applied Pharmacology for Advanced Practice 4 Credits
Nursing (CNS FNP)

This course is designed to assist students in obtaining the necessary pharmacologic content required to prepare them to function in an advanced practice role. The course is unique in that it explores, adapts and applies principles of pharmacology to the management of patient care within both primary and perioperative settings. The focus of the course is on major categories of drugs, their effects, side effects, toxicity and dosages. The principles of pharmacodynamics (action of drugs) and pharmacokinetics (absorption, distribution, metabolism and excretion) will be emphasized along with necessary modifications required for age, weight and race differences among patients. Students will be asked to consider the interaction between commonly prescribed drugs and anesthetic agents, as well as medication safety in the context of preparing a patient for a surgical procedure. This course will challenge student critical thinking and problem solving skills as they apply pharmacologic principles to a wide array of chronic and acute clinical conditions.

GSN 51053 Applied Pathophysiology for Advanced Nursing 3 Credits
Practice

This core course provides the students with in-depth presentations of those aspects of pathophysiology that are relevant to advanced practice nursing. The changes in physiological parameters occurring during the disease process will be presented along with clinical correlations. An emphasis is placed on clinical cases that are reflective of the military medical theater of operations. Clinical correlates will be presented consisting of cases and the results of evidence-based research focus on diseases and conditions common in peacetime and during deployment. Emphasis is on patient safety and tertiary prevention.

GSN 51332 Leadership and Management in a Global Environment 2 Credits

This course explores leadership challenges facing the advanced practice nurse within the federal health care system as well as provides an introduction to the scope of management. Students evaluate leadership and managerial skills, analyze theories for problem resolution at the individual, unit and organizational level; research culturally diverse issues that create conflict; and explore barriers that negatively influence communication, management and leadership. Interactive group sessions allow multiple opportunities to learn skills in critical thinking, communication, management, leadership, teaching and knowledge integration.

GSN 51132 Statistical Measures and Analytic Methods to Build Evidence for Military and Federal Health Care / Practice 2 Credits

This core course expands upon the basic principles of research, research problem formulation, and the quantitative and qualitative research methods used to conduct nursing research that were introduced in the first semester. More specifically, it focuses on the knowledge and technological skills needed to analyze and manipulate both quantitative and qualitative data. The utilization of computers and technology in research is emphasized.

Operational Readiness Seminars

The course is designed to provide the students with military unique skills and information necessary meet the mission of the uniformed services during deployments.

Research and Scholarship

Total 6 Credits

GSN76121 (Fall Year 1, 1 credit)
GSN76131 (Spring Year 1, 1 credit)
GSN7621(0-1) (Summer Year 2, 0-1 credit)
GSN7621(1-2) (Fall Year 2, 1-2 credits)
GSN7621(1-2) (Spring Year 2, 1-2 credits)

These courses are for the fulfillment of the scholarly project requirement for awarding the Master of Science degree. Students may work in groups and the research topic should be significant, related to the GSN curriculum foci, timely to the discipline of nursing, and relevant to the Federal Health Care System. There are two scholarly project options from which the students can choose: Research Project Culminating in a Thesis or Research Project Culminating in a Paper Submitted for Publication. The Research Project Culminating in a Paper Submitted for Publication can be accomplished by the completion of a research project or by involvement in at least three phases of a faculty research project. Students are registered for credit beginning in the fall of the first year and the following semesters.

GSN 7622(1-2) Research and Scholarship

1-2 Credits

These courses are for the fulfillment of the scholarly project requirement for awarding the Master of Science degree. Students may work in groups and the research topic should be significant, related to the GSN curriculum foci, timely to the discipline of nursing, and relevant to the Federal Health Care System. There are two scholarly project options from which the students can choose: Research Project Culminating in a Thesis or Research Project Culminating in a Paper Submitted for Publication. The Research Project Culminating in a Paper Submitted for Publication can be accomplished by the completion of a research project or by involvement in at least three phases of a faculty research project. Students are registered for credit beginning in the fall of the first year and the following semesters.

GSN 7623(1-2) Research and Scholarship

1-2 Credits

These courses are for the fulfillment of the scholarly project requirement for awarding the Master of Science degree. Students may work in groups and the research topic should be significant, related to the GSN curriculum foci, timely to the discipline of nursing, and relevant to the Federal Health Care System. There are two scholarly project options from which the students can choose: Research Project Culminating in a Thesis or Research Project Culminating in a Paper Submitted for Publication. The Research Project Culminating in a Paper Submitted for Publication can be accomplished by the completion of a research project or by involvement in at least three phases of a faculty research project. Students are registered for credit beginning in the fall of the first year and the following semesters.

Family Nurse Practitioner Courses

FNP 62015 Advanced Principles in Adult Primary Care 5 Credits

This course prepares the student to function at a beginning level as an advanced practice nurse (APN) in a primary care setting. This course applies the nursing process, using communication and assessment skills, interpreting findings, applying laboratory diagnostic methods, developing plans of care and implementing nursing strategies to promote the health of adolescents and young adults with common health problems. Operational readiness and deployment is integrated throughout this course. This course is designed to teach the student to develop his/her own problem-solving grid for a variety of health problems presented by the adolescent, younger and older adult patient. The focus of this course is on selected minor acute and chronic diseases seen in primary care. There is integration and application of concepts learned from pathophysiology and pharmacology, along with utilization of research findings in primary care nursing practice. Problem solving & critical thinking are emphasized throughout.

FNP 62025 Advanced Principles in Pediatric Primary Care 5 Credits

This course prepares the student to assume the role of primary care provider for children from birth through adolescence by means of a combination of didactic and supervised clinical experiences. The course first focuses on health needs and potential risks to health maintenance of well children with special attention given to topics such as assessment of normal growth and development, health care maintenance, immunizations, anticipatory guidance, parenting, and nutrition. The focus then moves to the identification of disruptions in the physical, cognitive, and personal expressions of health in children. Utilizing a systems approach, discussion centers on selected minor acute and chronic diseases seen in primary care of children, with special consideration given to the effects of health problems on the growth and development of the child. Developmental theory, family dynamics, cultural diversity, and preventive health care are integrated throughout. The course highlights the unique characteristics and needs of the military child and family.

FNP 61033 Integration and Application of Family Theory in Primary Care 3 Credits

This course is designed to integrate theories of family development with particular emphasis on the military family. The course utilizes the concepts of family, family theory, family forms, and family assessment tools as the basis for analysis of families. Such issues as family struggles, support systems, long distance relationships, and re-incorporation after deployment are addressed. Substance abuse, violence within families, reconciling family and career issues, and elder care are considered as well. The course also focuses on legal issues affecting families and the impact of culture on families.

FNP 62045 Advanced Principles in Primary Care of Women 5 Credits

This course builds upon prerequisite courses to provide the knowledge and skills necessary for the student to further incorporate family systems concepts while focusing on the care of women and their families throughout the lifespan. Emphasis is directed towards the specific health care needs of the pregnant woman, and the menopausal woman. Clinical practice includes interdisciplinary collaboration and consultation. Military TDY clinical sites are utilized for some students.

**FNP 72114 Clinical Practicum and Seminar for Nurse Practitioner 4 Credits
Practice I**

This is the first of two clinical practicum courses in the last year of the program in which the student will be immersed in clinical practice to integrate newly acquired knowledge and skills in preparation to practice as a military family nurse practitioner. This time will be devoted to the enhancement of the students' current knowledge base in the areas of adult, pediatric, women's and family health. Seminar sessions will be conducted in three-hour blocks, dependent on clinical rotations. Course content and presentations are intended to enhance learning, integrate knowledge and promote academic discussion on primary care and military issues commonly confronted by patients and their families. Some lectures will take a case study format, focusing on the needs of the students in order to strengthen assessment and management of more complex medical/psychosocial problems common to the primary care setting. The case studies will assist students in refining and demonstrating their communication abilities as well as their critical thinking abilities. Clinical sites are carefully chosen in order to offer opportunities to participate as fully integrated family nurse practitioners. The didactic and clinical experience is tailored to the students' individual needs as clinicians. Military TDY clinical sites are utilized for some students.

**FNP 74131 Clinical Specialty Practicum for Nurse Practitioner 1 Credit
Practice: Sessions A/B**

This course builds on the Clinical Practicum and Seminar for Nurse Practitioner Practice courses, by offering students additional opportunities to practice in specialty clinical settings. Specialty clinical settings are selected that place special emphasis on building skills in selected clinical areas encountered by the family nurse practitioner. In this course, students will complete four one-week immersion experiences in the following areas: Dermatology, Internal Medicine, ENT, and Orthopedics/ Sports Medicine/ Physical Therapy. This is a clinical course with no didactic or seminar component.

Students take this course in either Semester 5 or Semester 6. It is alternated with the Military Contingency Medicine /Bushmasters Course.

**FNP 72124 Clinical Practicum and Seminar for Nurse Practitioner 4 Credits
Practice II**

In the last year of the program, students are immersed in clinical practice. Clinical sites are carefully chosen in order to offer them the opportunity to participate as a fully integrated family nurse practitioner. Family Nurse Practitioner students see people of all ages, from infants to geriatrics, and are called upon to manage all types of conditions. Well-child, well-women, acute and chronic conditions will all be encountered. Didactic is focused on case based clinical examples, which focus on the populations of interest to the uniformed services; relevant family health issues will be included in the case presentations. This clinical immersion will be accompanied by a seminar, in which case presentations and continuing clinical content are presented. Military TDY clinical sites are utilized for some students.

Nurse Anesthesia Courses

RNA 63011 Applied Neuroscience I

1 Credit

This course is intended to provide the student with a basic understanding of the structure and function of the nervous system. It is a specialized course which includes the study of the cellular and functional aspects of the central and peripheral nervous system.

RNA 61033 Applied Biochemistry for Nurse Anesthesia

3 Credits

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

RNA 63022 Applied Neuroscience II

2 Credits

This course is a continuation of Neuroscience I and provides students with a basic understanding of the structure and function of the nervous system. It is a specialized course which includes the study of the cellular and functional aspects of the central and peripheral nervous system.

RNA 63045 Basic Anesthetic and Pharmacologic Principles of Anesthesia

5 Credits

This course integrates basic principles of anesthesia with pharmacologic chemical and physical principles involved in the administration of anesthetic drugs. Basic principles of anesthesia covered include equipment and monitors, regional anesthesia, and beginning airway management. Pharmacologic principles discussed include states and properties of matter, laws governing the behavior of gases, flow and vaporization as well as the description of anesthetic drugs and agents common to clinical practice. Content includes chemistry of anesthetic drugs, uptake, distribution, and toxicology of anesthetic drugs. The human patient simulator is incorporated into the learning process to reinforce principles introduced in class.

RNA 63055 Advanced Principles of Anesthesia

5 Credits

The second of 2 courses presents the principles of nurse anesthesia practice. Concepts introduced in the basic course are built and more complex issues are introduced. Anesthetic implications relating to specific pathophysiologic conditions, specialty surgeries, and extremes of age are discussed. The human patient simulator is incorporated into the learning process to reinforce principles introduced in class.

RNA 61065 Medical Pharmacology for Nurse Anesthetists

5 Credits

This course provides the pharmacodynamics, biochemical, and physiological properties, side effects, toxicities and contraindications of prototype drugs. Substantial clinical material is included although the course is not devoted to therapeutics. General principles of drug

absorption, metabolism, and elimination are first presented followed by a discussion of local anesthetics, neuromuscular agents, autonomic drugs and centrally acting agents. In addition, cardiovascular drugs, renal agents, hormonal therapy are presented. Upon completion of this course the student will have had a broad exposure to the principles of pharmacology and the properties of the major drug groups used in the treatment of disease.

RNA 61071 Clinical Pharmacology for Nurse Anesthetists 1 Credit

This course provides the anesthesia implications of selected pharmacologic agents including those introduced in Medical Pharmacology for Nurse Anesthetists as well as other agents including anti-infectives and chemotherapeutic agents. Additional topics covered include use of pharmacologic agents during pregnancy and lactation, neonatal clinical pharmacology, pediatric clinical pharmacology, and geriatric clinical pharmacology.

RNA 72111 Clinical Practicum and Seminar for Nurse Anesthesia Practice I 1 Credit

This course is an introduction to the art and science of nurse anesthesia, including discussion of basic anesthetic principles and beginning clinical practicum to introduce the student to the anesthetic equipment and operating room environment. Progressive, guided instruction is given on the clinical and ethical management of patients undergoing all forms of anesthesia. Legal and ethical aspects of anesthesia delivery and patient interaction strategies are also covered. This course is designed to give the student practical information regarding the administration of safe anesthesia as well as to give the student an exposure to expectations in nurse anesthesia and to provide preparation in the administration of a safe, routine anesthetic with a moderate amount of instructor intervention.

RNA 72112 Clinical Practicum and Seminar for Nurse Anesthesia Practice II 1 Credit

Graduated, guided instruction is given on the clinical management of patients receiving various types of anesthesia. Focus is on the preparation and planning for anesthesia, including administration of anesthesia for patients exhibiting more complicated pathophysiology. Emphasis is on more advanced technical instruction and experience. Correlation of didactic and clinical materials, as well as continuous evaluation of student progress, is integral to this course.

RNA 72113 Clinical Practicum and Seminar for Nurse Anesthesia Practice III 1 Credit

Individual in-depth study of advanced clinical nurse anesthesia in such specialty areas as neurosurgical, cardiovascular, obstetric, and pediatric anesthesia is provided. The student learns to handle more difficult specialized patients who are at higher risk. Emphasis is on more complex management with advanced monitoring techniques, use of pharmacological agents, and handling higher stress situations. Students develop and utilize practical clinical applications of nurse anesthesia theory. Students are individually assigned to specialty areas and are formally evaluated at the end of each rotation. Case presentations and group discussion designed to

assist the student in conceptualizing, analyzing, and evaluating various nurse anesthesia strategies are included.

RNA 72114 Clinical Practicum and Seminar for Nurse Anesthesia Practice IV 1 Credit

This course is the continuation of administration of advanced, independent clinical nurse anesthesia. Emphasis is on management of high risk for patients and advanced anesthetic principles. Students continue out rotations in specialty areas.

RNA 72115 Clinical Practicum and Seminar for Nurse Anesthesia Practice V 1 Credit

This is the final semester of clinical training where students synthesize and integrate all aspects of anesthesia care. Students are prepared to transit from student to graduate status.

Perioperative Clinical Nurse Specialists Courses

PCS 62013 Standards, Quality and Safety in Practice I 3 credits

This course concentrates on bridging federal/national regulations and organizational practice standards with clinical practice; merging concepts of clinical operations and quality improvement strategies with safety and practice guidelines. Students will research critical processes and bioethical issues within the practice environment, review regulatory and practice guidelines, examine patient/staff safety issues, complete a failure mode effectiveness analysis, and explore teaching strategies to validate and sustain core knowledge of practice guidelines. Students' critical thinking skills are challenged throughout this course as programs are analyzed and literature researched.

PCS 62023 Standards, Quality and Safety for Perioperative CNS Practice II 3 Credits

This course builds upon concepts learned in Standards, Quality and Safety for CNS Perioperative Practice I as students engage in consultative/collaborative relationships with multidisciplinary health care providers focused on problem-solving activities. Students will research critical processes within the practice environment, review regulatory and practice guidelines, and examine patient/staff safety issues to promote performance improvement and incorporate evidence-based practice. They will explore the Federal Health Care Standardization Process as a manager's tool to enhance productivity, efficiency, patient safety, and resource management. The analysis of perioperative processes using a systems approach to improve patient safety will expose the students to the value of collaboration as well as support the development of the consultant and managerial/leadership role of the Perioperative CNS. High-risk clinical issues such as Malignant Hyperthermia, advanced airway management, trauma, obesity and conscious sedation are examined in support of the clinical expert role of the CNS.

PCS 62033 Health Care Resource Management (formerly know as Leadership and Health Care Resource Management) 3 Credits

This course examines the concepts of health care financial management, human resource management and strategies for application in nursing practice within the federal health care system. Strategies to gain the "competitive advantage" in the business end of health care are explored, as well as tools and techniques facilitating decision-making for patient care programs focused on patient safety. Analysis of financial information and its impact on operational performance are the foci for this course as students develop a business and staff resourcing plan demonstrating efficient and effective management of resources for delivery of quality patient care services. The perioperative environment will be the focus setting for this course within both the traditional and contingency health care environments.

PCS 72113 Clinical Practicum and Seminar for Perioperative CNS Practice I 3 Credits

The driving force for this course is the implementation and evaluation of 3 of the 5 Perioperative CNS domains: educator, manager, and consultant. Students will operationalize each role in the perioperative environment by completing special projects identified in collaboration with industry and clinical preceptors. Central Materiel Service (CMS), a crucial and often under emphasized specialty within the Perioperative CNS's sphere of influence, will form the backdrop for a student orchestrated managerial project. Students will identify and complete a major CMS project that will meet the immediate needs of a specific Military Treatment Facility. Students will also use knowledge and experience gained during "Military Contingency Medicine" and "Operation Bushmaster" to fully explore perioperative trauma competencies from a global perspective. The focal point of this course is on the utilization of critical thinking skills, research, and evidenced-based practice to form the foundation for practice decisions, project completion and analysis. In addition, the seminar format is used for students to present and critique relevant issues and practice decisions related to their clinical experiences.

PCS 72124 Clinical Practicum and Seminar for Perioperative CNS Practice II 4 Credits

The major thrust of this course is the analysis, implementation and evaluation of the Perioperative Clinical Nurse Specialist role of clinical expert in both traditional and contingency settings, supporting operational readiness within the federal health care system. Students will complete three rotations exploring the expanded clinical role of the advanced practice nurse within the perioperative continuum (Preadmissions/Same Day Surgery, Operating Room, and Perianesthesia Care Unit-PACU). These rotations, at one of two "flag ship" medical centers in the Triservice inventory, focus on gaining competencies throughout this environment in support of patient safety, trauma, mass casualty, and contingency missions. Students will perform staff and patient education projects in the Preadmission/Same Day Surgery unit to enhance patient safety; perform surgical assist activities in the Operating Room to gain clinical expertise focused on procedures similar to those seen in the deployed environment, and complete didactic instruction in Perianesthesia skills with follow-on competency focused training to enhance the clinical role of the PCNS during contingency operations.