Doctor of Nurse Anesthesia Practice

The doctorate in nurse anesthesia practice is a comprehensive 36-month program in which registered nurses receive extensive education in both the academic and clinical components of nurse anesthesia. Students learn to administer anesthesia to all patient populations in a variety of clinical settings using all current anesthesia techniques, and graduates are prepared to take the national certification examination required to become Certified Registered Nurse Anesthetists. The program is fully accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (https://www.coacrna.org/), and the Kansas State Board of Nursing (http://www.ksbn.org/).

Goals of the program

This doctorate program prepares the registered nurse to become a nurse anesthesia practitioner with the capability to deliver competent nurse anesthesia services, engage in research, and assume leadership roles in the profession. Strongly rooted in science, the program is designed for the most ambitious and brightest professionals. The basic science and clinical education opportunities help graduates succeed as advanced practice nurses with increased esteem, independence, and earning power.

- **Academic**
  Obtain an advanced body of specialized knowledge necessary to integrate didactic information and clinical data and formulate a comprehensive individualized care plan.

- **Clinical**
  Demonstrate ability to plan and administer a safe and physiologic anesthetic based on knowledge and synthesis of anesthetic principles and basic science study.

- **Research**
  Demonstrate an appreciation for the role, nature and conduct of research modalities and their application to practice and professional growth.

- **Professionalism**
  Integrate ethical, legal and cultural considerations with personal and professional value systems in nurse anesthesia.

Faculty and Clinical Instruction
Our full-time CRNA faculty, with extraordinary levels of experience as nurse anesthetists, serve as advisors, teach classes and supervise students in the clinical setting. Anesthesiologists and CRNAs at The University of Kansas Hospital provide advanced clinical instruction. The specialty areas in which KU anesthesiologists have completed fellowships is diverse and impressive. Adjunct faculty at additional affiliate sites (https://www.kumc.edu/school-of-health-professions/academics/departments/nurse-anesthesia-education/academics/clinical-education.html) provide invaluable clinical instruction.

The Department of Nurse Anesthesia Education (http://na.kumc.edu/) is part of the KU School of Health Professions (http://healthprofessions.kumc.edu/) located on the KU Medical Center campus in Kansas City, KS.

Applications for this program are accepted online. Detailed instructions on how to apply are posted on the KU Department of Nurse Anesthesia (http://www.kumc.edu/school-of-health-professions/nurse-anesthesia-education/prospective-students/how-to-apply.html) website. The application period begins March 15 and closes July 15 each year. All prerequisites must be completed August first of the application year.

Students who are Kansas residents have the opportunity to apply for early decision. The early-decision application opens March 15 and closes May 15. Decisions about these interviews will be made in July each year.

The early decision application option includes all of the standard eligibility requirements (http://www.kumc.edu/school-of-health-professions/nurse-anesthesia-education/for-prospective-students/eligibility-and-requirements.html), as well as the following: Kansas residency is required, all five prerequisite courses must be completed at the time of application, and early-decision candidates must have all application materials to KU by the first of June. Please see more information here (http://www.kumc.edu/school-of-health-professions/nurse-anesthesia-education/for-prospective-students/early-decision-application-option.html), as well as our frequently asked questions regarding early decision (http://www.kumc.edu/school-of-health-professions/nurse-anesthesia-education/frequently-asked-questions.html#early). The Office of the Registrar has full residency requirements (https://www.kumc.edu/academic-and-student-affairs/departments/registrars-office/tuition-and-fees/residency-for-tuition-and-fee-purposes.html).

Admission to the program is increasingly competitive. Decisions about interviews will be made in the fall of each year. Qualified applicants who are invited to attend a personal interview must attend their interview to be considered. Applicants receive notification of their acceptance to the program in November of each year. The program begins the first Tuesday **after** Memorial Day of each year.

Admission requirements:

- A bachelor's degree from a regionally accredited institution is required and must be documented by submission of an unofficial transcript indicating the degree has been conferred before entering the program. Official transcripts for all course work from all institutions are required upon acceptance into the program. A bachelor's degree in an appropriate discipline such as nursing, respiratory care, biological sciences, health care administration, pharmacology, psychology, or sociology, is required. A bachelor's degree in nursing is not required. Students with degrees from outside the U.S. may be subject to transcript evaluation indicating the degree is equivalent to a U.S. degree and meets the minimum cumulative grade-point average requirement.

- Applicants must possess a cumulative grade-point average of at least a 3.0 on a 4.0 scale for his or her bachelor's degree program.

- Applicants who are not native speakers of English, whether domestic or international, must demonstrate they meet the minimum English proficiency requirement (http://catalog.ku.edu/graduate-studies/kumc/#admissiontext).

- Applicants must be a registered nurse with two years of work experience as a licensed registered nurse. Experience as an LPN does not fulfill this requirement.

- Applicants must have at least one year of recent (within the past 2-3 years), full-time experience in an intensive-care unit. This year of ICU experience must be completed prior to the official enrollment date. The admissions committee has found that the most successful applicants have experience in adult ICU, such as cardiac ICU, surgical ICU or medical ICU. Pediatric ICU is acceptable,

however, neonatal ICU and emergency department are not accepted. Applicants should have experience with the following:

- continuous hemodynamic monitoring (PA catheters, Swan-Ganz)
- ventilators
- EKG interpretation
- pharmacological monitoring (instituting, regulating and maintaining patients on drugs related to cardio pulmonary status or life-death situations)
- independent decision-making necessary in the ongoing care of unstable patients

- All applicants accepted into the program are required to obtain RN licenses for Kansas, Missouri, Nebraska, and Oklahoma prior to the start of the program (end of May each year). Any license with restrictions will not be accepted.

- Students must have completed prerequisite courses in the following basic sciences: chemistry I and II, human anatomy, human physiology, microbiology, and one course in statistics. Courses may be taken at an accredited 2-year college but cannot be taken for credit by examination. A pass grade will not be accepted unless the applicant provides written verification from the institution that the pass designation is equivalent to a grade of C or higher. Applicants not having met all the prerequisites by the application deadline must submit proof of enrollment for any missing prerequisites. All prerequisites must be complete by the end of the summer semester of the year the applicant is applying to the program.

- A minimum grade of C is required in all prerequisite courses with the exception of human physiology. For human physiology a minimum grade of B is required and the course must have been taken within ten years of entering this program. **Two semesters of combined human anatomy and physiology will also fulfill the human anatomy and human physiology requirements. If combined courses are used for this prerequisite, both must have a minimum grade of B and be taken within ten years of entering this program.**

- **Two references** are required. Applicants are required to provide the names and contact information (including email addresses) of two (2) specific individuals when completing the online application. Family members and friends may not be included. The references must be provided by 1) a current nurse manager/supervisor and 2) an advanced-practice nurse or physician having routinely worked with and observed the work of the applicant. One of the references must be from the student's most recent ICU position.

- A resume or curriculum vitae is required and must include prior employment including details of all RN and ICU experience. It should also include participation in professional and/or voluntary organizations (e.g., hospital, alumni or nonprofit.)

- The applicant is required to provide a **statement of purpose** of 500 words or less to clearly explain future long-term goals as a nurse anesthesia provider and his or her hopes for contributions to the profession. Writing skills appropriate for graduate-level education are expected.

- Shadow experience. Applicants must shadow with either a CRNA or an anesthesiologist to gain a better understanding of the nurse anesthesia profession through both observation and discussion. Applicants are responsible for arranging their own shadow experience and ensuring that the anesthesia provider completes the shadow verification form (http://www.kumc.edu/Documents/shp/nurse-anesthesia/Shadow-Verification-Form-Feb2015.pdf). The shadow experience may be completed at any hospital, including the student's current employer, or one in which a relationship exists with an anesthesia provider. Arrangements can be made to shadow at The University of Kansas Hospital but are limited by faculty availability.

- A personal interview will be held for selected applicants.

- The Joint Commission requires all incoming students to complete and pay for a background check (https://catalog.ku.edu/graduate-studies/kumc/#BackgroundCheck). This one-time fee must be paid directly to the company performing the background investigation. For more information, please see the School of Health Professions background check instructions. (http://www.kumc.edu/school-of-health-professions/background-checks-and-drug-screening-for-students.html)

- Applicants are required to have completed certifications in Advanced Cardiovascular Life Support, Basic Life Support, and Pediatric Advanced Life Support prior to starting the program, and must remain certified while in the program.

- CCRN certification is strongly recommended, but not required. If certified, a copy of the certification card must be uploaded with the application. Participation in professional and/or voluntary organizations or committees (e.g., hospital, alumni, nonprofits) is considered an advantage in the application evaluation.

Applicants will be assessed based on these requirements. Admission requirements are subject to change. In most cases, use the catalog of the year student entered the program. *Other years' catalogs».*

The Doctor of Nurse Anesthesia Practice (DNAP) program at the University of Kansas is designed with clinical experiences, class time, and study time. During the first 2 semesters, courses are mostly classroom-based during regular weekday hours. For the remainder of the program, students are assigned in the clinic with variable schedules, including 12-hour shifts outside of regular business hours. Students continue to take theory, research, and other courses during this time.

Much of the program's course work after the first year is web-based. This design permits more learning methods to be incorporated into the program and allows students to continue to gain knowledge through academic course work while developing their skills in the clinic.

Degree requirements:

- Degree requirements are normally completed within 3 years of admission to the program although a maximum of 8 years is allowed.
- Successful completion of a minimum of 81 credit hours.
- Cumulative grade-point average (GPA) of at least a 3.0 for all KU graduate coursework.
- Because of the sequential nature of the curriculum, any grades below "C" in any courses is grounds for non-progression and therefore the student may be considered for dismissal from the Program.
- Please note that grading in our clinical courses is more stringent (NURA 801, 821-823, and 924-926) with the following scale: 90-100 = "A", 80-89 = "B", 79 and below = Fail. A failing grade in a clinical course is grounds for dismissal.
- Successful completion of the University's Research Skills and Responsible Scholarship (http://catalog.ku.edu/graduate-studies/kumc/#programstext) requirement prior to the semester the research practicum is completed.
  - Successful completion of NURA 889 Introduction to Theory, Research Methods and Evidence-Based Practice meets the Research Skills requirement.

- • Successful completion of NURA 901 Evaluation and Application of Evidence-Based Practice in Anesthesia I meets the Responsible Scholarship requirement.
- Successful completion of a leadership project as indicated in course list below
- Successful completion of supervised clinical practicum as indicated in course list below.
- Successful completion of a senior scholarly project as indicated in course list below.
- Enrollment in a minimum of one (1) credit hour the semester the student will graduate.
- Students are required to maintain certifications in Advanced Cardiovascular Life Support (ACLS), Basic Life Support (BLS), and Pediatric Advanced Life Support (PALS) current throughout the program (at the student's expense.)
- Students must meet the clinical requirements for practice as required by the Council on Accreditation of Nurse Anesthesia Educational Programs. The requirements are posted on the Council on Accreditation of Nurse Anesthesia Educational Programs (https://www.coacrna.org/Pages/default.aspx) website.
- Successful completion of a terminal evaluation which will incorporate standards from the "Standards for Accreditation of Nurse Anesthesia Programs – Practice Doctorate". The standards document is posted on the Council on Accreditation of Nurse Anesthesia Educational Programs (https://www.coacrna.org/accreditation/accreditation-standards-policies-and-procedures-and-guidelines/) website.
- Successful completion of the following courses:

Code	Title	Hours
Core Courses		
NURA 761	Nurse Anesthesia Pharmacology I	3
NURA 764	Nurse Anesthesia Pharmacology II	3
NURA 800	Professional Aspects of Anesthesia	3
NURA 801	Introduction to Clinical Practicum	1
NURA 805	Clinical Anatomy	4
NURA 806	Advanced Physiology	4
NURA 808	Health Care Policy for Advanced Nursing Practice (Core Courses NOT outside the program)	2
NURA 809	Adv Pathophysiology	3
NURA 811	Advanced Theory in Anesthesia I	3
NURA 812	Advanced Theory in Anesthesia II	3
NURA 813	Advanced Theory in Anesthesia III	2
NURA 814	Advanced Theory in Anesthesia IV	3
NURA 815	Advanced Theory in Anesthesia V	3
NURA 820	Information Systems and Data Management in Anesthesia	1
NURA 831	Advanced Chemistry and Physics	2
NURA 833	Basic Principles of Anesthesia Practice	3
NURA 835	Advanced Physical Assessment and Patient Care Technology for Anesthesia	3
NURA 839	Regional Anesthesia/Pain Management	3
NURA 889	Introduction to Theory, Research Methods and Evidence-Based Practice	3
NURA 892	Applied Statistics and Analysis in Health Care	3
NURA 901	Evaluation and Application of Evidence-Based Practice in Anesthesia I	1
NURA 902	Evaluation and Application of Evidence-Based Practice in Anesthesia II	1
NURA 903	Evaluation and Application of Evidence-Based Practice in Anesthesia III	1
NURA 904	Evaluation and Application of Evidence-Based Practice in Anesthesia IV	1
Core Courses Outside Department		
PRVM 826	Epidemiology for Advanced Nursing Practice	3
Leadership Project		
NURA 912	Leadership in Nurse Anesthesia I	1
NURA 913	Leadership in Nurse Anesthesia II	1
Supervised Clinical Practicum		
NURA 821	Advanced Practicum in Anesthesia I	2
NURA 822	Advanced Practicum in Anesthesia II	2
NURA 823	Advanced Practicum in Anesthesia III	2
NURA 924	Advanced Practicum IV	2
NURA 925	Advanced Practicum V	2
NURA 926	Advanced Practicum VI	2
Capstone Project		
NURA 980	DNAP Senior Scholarly Project	5
Total Hours		**81**

Degree requirements and course descriptions are subject to change. Any courses taken as an equivalent must be approved by the Graduate Director and the Office of Graduate Studies. In most cases, use the catalog of the year student entered the program. *Other years' catalogs».*

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Typical Plan of Study

Year 1

Summer	Hours	Fall	Hours	Spring	Hours
NURA 805		4 NURA 761		3 NURA 764	3
NURA 831		2 NURA 806		4 NURA 801	1
		NURA 833		3 NURA 809	3
		NURA 835		3 NURA 889	3
				NURA 892	3
	6		**13**		**13**

Year 2

Summer	Hours	Fall	Hours	Spring	Hours
NURA 808		2 NURA 800		3 NURA 812	3
NURA 821		2 NURA 811		3 NURA 823	2
NURA 839		3 NURA 822		2 NURA 902	1
		NURA 901		1 PRVM 826	3
	7		**9**		**9**

Year 3

Summer	Hours	Fall	Hours	Spring	Hours
NURA 813	2	NURA 814	3	NURA 815	3
NURA 924	2	NURA 903	1	NURA 820	1
NURA 980	2	NURA 912	1	NURA 904	1
		NURA 925	2	NURA 913	1
		NURA 980	2	NURA 926	2
				NURA 980	1
			6	**9**	**9**

Total Hours 81

TECHNICAL STANDARDS AND REQUIREMENTS

The Doctor of Nurse Anesthesia Practice degree signifies that the holder is an anesthetist prepared for entry into the practice of nurse anesthesia, thus it follows that graduates must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care. This document delineates the cognitive, affective and psychomotor skills deemed essential to the completion of the program. If a student is not able to demonstrate the following skills and abilities, it is the responsibility of the student to request an appropriate accommodation. The University will provide reasonable accommodation as long as it does not fundamentally alter the nature of the nurse anesthetist program. The essential technical standards presented in this document are pre-requisite for matriculation, subsequent promotion from year to year, and ultimately graduation from the University of Kansas Clinical Doctorate in Nurse Anesthesia. These standards pertain to all matriculated students. All required courses in the curriculum are necessary in order to develop essential skills required to become a competent nurse anesthetist and to protect the health and safety of patients. Therefore, all students admitted to the nurse anesthesia program must be able to meet the following requirements and expectations with or without accommodation(s). Students are required to sign and return the technical standards form with their letter accepting a position in the program.

NOTE: Reasonable accommodation will be considered and may be made to qualified students who disclose a disability, so long as such accommodation does not significantly alter the essential requirements of the curriculum and the training program, or significantly affect the safety of patient care. Students who disclose that they have a disability are considered for the program if they are otherwise qualified. Qualified students with a disability who wish to request accommodation should provide appropriate documentation of disability and submit a request for accommodation to the University's Office for Academic Accommodations.

1. **Intellectual-Conceptual and Integrative and Quantitative Abilities. The nurse anesthesia student must be able to:**

a. use reason, analysis, calculations, problem solving, critical thinking, synthesis, self-evaluation and other learning skills to acquire knowledge, comprehend and synthesize complex concepts

b. comprehend three dimensional relationships and to understand the spatial relationships of structures

c. identify significant findings from history, physical examination, and laboratory findings to determine the appropriate sequence of events to implement effective clinical treatments in a timely manner

d. acquire and develop clinical reasoning and judgment skills under pressure

e. interpret information derived from auditory, visual, written, and other visual data to determine appropriate patient management plans

f. recall and retain information in an efficient and timely manner

g. demonstrate proficiency in both oral and written English language and communicate knowledge to others when indicated

h. effectively analyzing complex clinical situations such as cardiac or pulmonary arrest or airway obstruction

i. effectively function as an attentive, productive and constructive member of a healthcare team

j. demonstrate self-awareness and self-assessment of one's abilities and deficiencies or limitations and request help when needed.

2. **Observational Skills. The nurse anesthesia student must be able to:**

a. observe demonstrations and experiments in the basic sciences, including but not limited to, physiologic and pharmacologic demonstrations in animals, microbiological cultures, microscopic studies of microorganisms and tissues in normal and pathologic states.

b. observe a patient accurately at a distance or close at hand

c. discriminate variations in human responses to disease using visual (including color), auditory, tactile and other sensory cues

d. discriminate changes in monitoring devices and alarms using visual and auditory senses

e. Students must have visual acuity within normal ranges of motor facility appropriate to work within the confines of anesthetizing areas (with electronic monitoring and ventilatory equipment).

3. **Communication. The nurse anesthetist student must be able to:**

a. speak, hear and observe patients in order to elicit information, describe changes in mood, activity and posture, and perceive nonverbal communications.

b. communicate effectively and sensitively with patients, including not only speech but reading and writing.

c. communicate effectively and efficiently in oral and written form with all members of the health care team.

d. have hearing activity within normal ranges of motor facility appropriate to work within the confines of anesthetizing areas (with electronic monitoring and ventilator equipment).

4. **Professional, Behavioral and Social Attributes. The nurse anesthesia student must be able to:**

a. possess the emotional health required for full utilization of his/her intellectual abilities

b. exercise good judgment, the prompt completion of all responsibilities attendant the diagnosis and care of patients, and the development of mature sensitive and effective relationships with patients.

c. tolerate physically and emotionally taxing workloads

d. maintain composure and emotional stability during periods of high acute stress as well as periods of chronic stress

e. adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties inherent in the clinical problems of many patients.

f. display compassion, integrity, concern for others, open-mindedness, interpersonal skill, self-discipline, focus and motivation

g. accept criticism and respond by appropriate behavior modification

h. use supervision appropriately and act independently when indicated

5.   Motor and tactile function. The nurse anesthesia student must be able to:

a. elicit information from patients by palpation, auscultation, percussion, and other diagnostic maneuvers

b. physically do basic laboratory tests and to read EKGs and x-rays

c. execute both gross and fine muscular movements, equilibrium and functional motor movements reasonably required to provide general care and emergency treatment to patients (ex: cardiopulmonary resuscitation, administration of intravenous medication, the application of pressure to stop bleeding, the opening of obstructed airways and the suturing of simple wounds)

d. physically respond to emergency calls without locomotion or transportation limitation

e. document that no disease process exists which predisposes them to hepatic disorders