STANDARDS FOR ACCREDITATION

OF NURSE ANESTHESIA PROGRAMS

Practice Doctorate

Approved by the Council on Accreditation of
Nurse Anesthesia Educational Programs
~~January 23, 2015~~May 21, 2025
~~Editorial Revisions February 29, 2024~~

10275 W. Higgins Rd., Suite 906, Rosemont, IL 60018-5603

Table of Contents

Standards for Accreditation of Nurse Anesthesia Programs
Practice Doctorate

Preamble

The Council on Accreditation of Nurse Anesthesia Educational Programs (COA) accredits nurse anesthesia programs within the United States and Puerto Rico that award post-master's certificates~~, master's,~~ or doctoral degrees, including programs offering distance education. Students accepted into accredited entry-level programs on or after January 1, 2022 must graduate with doctoral degrees. The Council also offers accreditation for postgraduate CRNA fellowships (fellowship).

The accreditation standards for entry-level nurse anesthesia programs offering practice doctorate degrees and accreditation standards for postgraduate fellowships are written with input from a wide community of interest consisting of many individuals and groups including Certified Registered Nurse Anesthetist (CRNA) practitioners and educators, nurse anesthesia students, administrators and faculty of colleges and universities, hospital administrators, state boards of nursing, the staff of the United States Department of Education (USDE), the Council for Higher Education Accreditation (CHEA) and other nationally recognized accreditation agencies, members of the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA), and the Board of Directors of the American Association of Nurse Anesthesiology (AANA). Special recognition is given to members attending the Assembly of Didactic and Clinical Educators (formerly known as the Assembly of School Faculty) meeting and to those on the AANA Education Committee for their continuing efforts to promote, support, and encourage the Council's objectives of quality assessment and enhancement in nurse anesthesia education through the accreditation process.

Practice Doctorate Programs

The standards are designed to prepare graduates with competencies for entry into anesthesia practice.

> *Entry-into-practice competencies for the nurse anesthesia professional prepared at the practice doctoral level are those required at the time of graduation to provide safe, competent, and ethical anesthesia and anesthesia-related care to patients for diagnostic, therapeutic, and surgical procedures.*

Entry-into-practice competencies should be viewed as the structure upon which nurse anesthetists continue to acquire knowledge, skills, and abilities along the practice continuum

that starts at graduation (proficient) and continues throughout their entire professional careers (expert).

Postgraduate CRNA Fellowships

A fellowship is a program, accredited by the Council, that contains advanced education and training in a focused area of specialty practice or concentration. The fellowship is applicable to CRNAs. Nonclinical fellowships may be applicable to other advanced practice registered nurses (APRNs). Although each fellowship may be unique, the standards are intended to promote quality and consistency for accreditation purposes. These standards apply to fellowships conducted face-to-face and/or via distance education.

Future Revisions

Suggestions for future revisions should be forwarded to:

Council on Accreditation of Nurse Anesthesia Educational Programs
10275 W. Higgins Rd., Suite 906
Rosemont, Illinois 60018-5603

Mission, Values, Scope, Purposes, and Objectives of the Council on Accreditation of Nurse Anesthesia Educational Programs

The COA's Mission is:

To establish standards that promote quality education in nurse anesthesia programs through accreditation.

The Values of the COA include:

- **Integrity -** Fair and objective decisions based on consistent application of COA Standards.
- **Accountability –** Responsive, efficient and professional interaction with nurse anesthesia programs, free of conflicts of interest.
- **Commitment –** Dependable and respectful support to enhance and advance nurse anesthesia educational programs.
- **Diversity, equity, inclusion –** Mindful and open accreditation to ensure unrestricted opportunity in nurse anesthesia training.
- **Quality –** Evidence-based decisions and continuous improvement of operations, work, and assessment of programs.
- **Innovation –** Creative approaches to enhance and advance the profession, education programs and the COA.

The Scope of the Council:

The Council is a nationally recognized accrediting agency for the accreditation of institutions and programs of nurse anesthesia at the post-master's certificate, post-doctoral certificate, master's, or doctoral degree levels in the United States, and its territories, including programs offering distance education.

The goals of the Council are to:

1. Pursue its mission, goals, and objectives and conduct its operations with integrity.
2. Formulate and/or adopt standards, criteria, policies, and procedures for the accreditation of nurse anesthesia educational programs and fellowships, subject to review and comment by all constituencies that are significantly affected by them.
3. Foster academic quality in educational programs and fellowships.
4. Utilize evaluation to measure a program's or fellowship's degree of success in meeting programmatic objectives and accreditation requirements within the context of its institutional mission and resources.

5. Encourage innovations in program and fellowship design and/or experimental programs and fellowships that are based on sound educational principles.

6. Ensure responsiveness to its communities of interest including but not limited to students, programs, fellowships, and the public.

7. Foster student achievement and continuous program improvement as a basis of promoting quality nurse anesthesia services to the public.

8. Incorporate public involvement in its decision making related to quality and accountability.

The objectives of the Council are to:

1. Publish standards of accreditation and policies and procedures defining the accreditation process for nurse anesthesia graduate programs and fellowships with input from the communities of interest.

2. Periodically assess programs and fellowships for compliance with accreditation standards through annual reports, self studies, site visits, and progress reports.

3. Confer and publish accreditation decisions and the reasons for the decisions.

4. Require programs and fellowships to routinely provide reliable performance and information data to the public.

5. Offer consultation concerning nurse anesthesia education to enhance academic quality.

6. Conduct collaborative reviews with other accrediting agencies, as appropriate.

7. Maintain external recognition by recognized authorities.

8. Participate in a systematic self-assessment of the standards, policies, and procedures of accreditation to ensure accuracy and reliability.

9. Provide accurate information concerning accredited programs and fellowships.

10. Consider legitimate allegations from complainants concerning the accreditation process.

11. Employ appropriate and fair procedures in decision making.

12. Ensure the academic quality of distance and traditional educational offerings.

The Value of Accreditation

Accreditation is a voluntary activity that has been accepted for more than 100 years in the United States, in contrast to other countries where governments supervise and control educational institutions. The goals of privately operated US accrediting agencies are to assure and improve the quality of education offered by the institutions and programs they accredit. In this system, accreditation by an accrediting agency that is recognized by the US Secretary of Education is necessary for institutions and programs to receive federal funds and for students to receive federal aid. Accrediting agencies recognized by federal and state governments are deemed reliable authorities of academic quality.

The large percentage of Americans who benefit from higher education, the reputation of US universities for both fundamental and applied research, and the widespread availability of professional services in the United States all attest to the high quality of postsecondary education and the success of the accreditation system that US institutions and professions have devised to promote quality.

Accreditation is a peer process whereby a private, nongovernmental agency grants public recognition to an institution or specialized program that meets or exceeds nationally established standards of acceptable educational quality. A guiding principle of accreditation is the recognition that institutions or specialized programs have a right to expect that they will be evaluated in the light of their own stated purposes, as long as those purposes are educationally appropriate, meet accreditation standards, and fall within the recognized scope of the accrediting body.

There are 2 fundamental reasons for accreditation: (1) to ensure quality assessment and (2) to assist in quality improvement. Accreditation, which applies to institutions or programs, must be distinguished from certification and licensure, which apply to individuals. Accreditation cannot guarantee the quality of individual graduates, but it can provide reasonable assurance of the context and quality of the education that is offered.

Accreditation provides services that are of value to several constituencies:

The public receives:

1. reasonable assurance of the external evaluation of a program and its conformity with general expectations in the professional field;

2. identification of programs that have voluntarily undertaken explicit activities directed at improving their quality and their successful execution;

3. improvement in the professional services available to the public, resulting from the modification of program requirements to reflect changes in knowledge and practice that are generally accepted in the field;

4. less need for intervention by public agencies in the operations of educational programs, because of the availability of private accreditation for the maintenance and enhancement of educational quality.

Students benefit from:

1. reasonable assurance that the educational activities of an accredited program have been found to be satisfactory and meet the needs of students;
2. assistance in transferring credits among programs and institutions;
3. a uniform prerequisite for entering the profession.

Programs receive:

1. the stimulus needed for self-directed improvement;
2. peer review and counsel provided by the accrediting agency;
3. enhancement of their reputation, because of the public's regard for accreditation;
4. eligibility for selected governmental funding programs and private foundation grants.

The profession realizes:

1. a means for participation of practitioners in establishing the requirements for preparation to enter the profession;
2. a contribution to the unity of the profession by bringing together practitioners, educators, students, and the communities of interest in an activity directed toward improving professional preparation and practice.

References:

1. *The Value of Accreditation.* Council for Higher Education Accreditation, June 2010.

2. *The Importance of Specialized Accreditation: A Message to Our Publics*. Association of Specialized and Professional Accreditors. 2007.

The Accreditation Process

The Council is responsible for establishing the standards for accreditation of nurse anesthesia educational programs and postgraduate CRNA fellowships, subject to consideration of recommendations from the communities of interest. In an effort of ongoing improvement, the standards will undergo continual review and be subject to periodic major and minor revisions as indicated. Compliance with the standards forms the basis for the Council's accreditation decisions.

Ongoing oversight by the Council is provided between formal programmatic reviews. Programs are required to advise the Council and get approval for major changes. The Council also investigates situations brought to its attention that may affect a program's accreditation status.

In a broad sense, accreditation of nurse anesthesia educational programs and fellowships provides quality assurance concerning educational preparation through continuous self study and review. The ultimate goals of the accreditation program are to improve the quality of nurse anesthesia education, and provide competent nurse anesthetists for healthcare consumers and employers.

Practice Doctorate Standards

The practice doctorate standards address: (A) conducting institutions, (B) faculty, (C) students, (D) graduates, (E) curricula, (F) clinical sites, (G) policies, and (H) evaluations.

The accreditation process for established programs is based on the self-evaluation study document prepared by the program and an onsite review by a team of 2 or 3 reviewers. Certain Standards have been ascertained to have major significance regarding educational quality. Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation and is marked with an asterisk (*). The Council reserves the right to identify other areas or Standards.

The process is repeated at intervals of up to 10 years. A summary report of the review is presented to the Council for an accreditation decision. New programs that seek accreditation status must successfully complete an initial accreditation review, become accredited, admit students, and undergo a subsequent review when it is possible to evaluate educational outcomes following the first graduation. Each program is required to complete and submit an annual report.

Graduation from an accredited program is a prerequisite for eligibility for national certification. It is also used as a criterion by licensing agencies, employers, and potential students in the decisions they make and in determining eligibility for government funding.

Postgraduate CRNA Fellowships

The Postgraduate CRNA Fellowship Standards address: (A) conducting organizations, (B) faculty/mentors, (C) fellows, (D) graduates, (E) curricula, (F) clinical sites, (G) policies, and (H) evaluations.

The accreditation process for fellowships is based on the postgraduate fellowship assessment document prepared by the fellowship and a virtual onsite review by the Fellowship Review Committee. Accreditation may be offered for onetime fellowships or continuous/intermittent fellowships. Continuous/intermittent fellowships may be accredited for intervals of up to 5 years. New fellowships that seek accreditation status must successfully complete an initial *Postgraduate CRNA Fellowship Assessment,* become accredited, and admit fellows. Only fellows enrolled after accreditation is awarded will graduate from an accredited fellowship.

A. CONDUCTING INSTITUTION STANDARDS

1. The mission and/or philosophy of the conducting institution's governing body promotes educational excellence and supports the nurse anesthesia program within a doctoral framework.

2. The organizational relationships of the institution, academic unit, and program are clearly delineated.

* 3. The conducting ~~organization~~ institution completes a legally binding written agreement that outlines the expectations and responsibilities of all parties when an academic affiliation is established or ~~2~~ when two or more entities with unshared governance enter into a joint arrangement to conduct a program[1] *(see Glossary, "Conducting institution," "Unshared governance").*

4. The amount of advanced standing or transfer credit awarded by the degree granting institution is clearly stated and publicized.

5. The governance structure~~(s)~~ in which the program functions facilitates appropriate involvement and effective communication among and between faculty, students, administrators, the public, and its communities of interest.

6. The CRNA program administrator, or an individual designated by the CRNA program administrator, participates in institutional planning, curriculum design and review, and other appropriate governance roles.

7. The institution's and/or program's committee structure is appropriate to meet program objectives and includes public, student, and faculty participation *(see Glossary, "Public member").*

* 8. The conducting institution provides sufficient time to permit faculty to fulfill their obligations to students including clinical and classroom teaching, counseling and evaluation, and advising on doctoral level scholarly activities *(see Glossary, "Scholarly work oversight," "Sufficient time")*.

9. The conducting institution provides ~~sufficient~~ protected time to permit faculty to fulfill their own administrative, teaching, research/scholarly activities, service, ~~administrative,~~ and/or clinical responsibilities (*see Glossary, "Protected time")*.

[1] May not be applicable to all accredited programs.

* 10. The program's resources must be adequate to support the size and scope of the program to appropriately prepare students for practice and to promote the quality of graduates including:

10. 1. financial resources that are budgeted and used to achieve program outcomes and meet accreditation standards

10. 2. physical resources including facilities, equipment, and supplies

10. 3. learning resources including clinical sites, library, and technological access and support

10. 4. faculty

10. 5. support personnel

10. 6. student services (*see Glossary, "Student services")*

* 11. The program seeks Council approval before making a significant increase~~ing~~ in class size and demonstrates reasonable assurance there are adequate resources as delineated in Standard A.10 *(see Glossary, "Significant increase")*.

* 12. The program is required to act in accordance with the Council's *Accreditation Policies and Procedures.*

13. There is evidence that eligibility and certification requirements are maintained by institutions or programs relying on Council's accreditation to participate in Higher Education Opportunity Act, Title IV programs[2] *(see Glossary, "Title IV eligibility").*

* Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation.

[2] May not be applicable to all accredited programs.

B. FACULTY STANDARDS

CRNA Program Administrator

* 1. The program is administered by a doctorally prepared CRNA who has the leadership authority and accountability for program administration.

2. The CRNA program administrator's doctoral degree must be from an institution of higher education that was accredited by an agency officially recognized by the US Secretary of Education to accredit institutions at the time the degree was conferred *(see Glossary, "Institutional accreditor").*

* 3. The CRNA program administrator must be experientially qualified to provide leadership to the program *(see Glossary, "Experientially qualified")*.

4. The CRNA program administrator is full time *(see Glossary, "Full-time program administrator").*

* 5. The CRNA program administrator has a current license or privilege to practice as a registered professional nurse and/or APRN in the state or territory of jurisdiction of the program *(see Glossary, "Advanced Practice Registered Nurse" and "Privilege to practice").*[3]

* 6. The CRNA program administrator has current certification or current recertification by the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA).

7. The CRNA program administrator actively participates in the preparation of and has the authority to ~~prepare and~~ administer the program budget.

8. The CRNA program administrator demonstrates knowledge of environmental issues that may influence the program and nurse anesthesia practice by engaging in professional development *(see Glossary, "Environmental issues").*

[3] A federal government/military nurse practicing exclusively in federal or military systems only needs 1 license from any state or territory per US federal government/military policy.

Assistant CRNA Program Administrator

* 9. The assistant CRNA program administrator is a doctorally prepared CRNA who is experientially qualified to assist the CRNA program administrator and, if required, assume leadership responsibilities for the program *(see Glossary, "Experientially qualified")*.

10. The assistant CRNA program administrator's doctoral degree must be from an institution of higher education that was accredited by an agency officially recognized by the US Secretary of Education to accredit institutions at the time the degree was conferred (*see Glossary, "Institutional accreditor").*

* 11. The assistant CRNA program administrator has a current license or privilege to practice as a registered professional nurse and/or APRN in the state or territory of jurisdiction of the program[4] (*see Glossary, "Advanced Practice Registered Nurse" and "Privilege to practice")*.

* 12. The assistant CRNA program administrator has current certification or current recertification by the NBCRNA.

13. The assistant CRNA program administrator demonstrates knowledge of environmental issues that may influence the program and nurse anesthesia practice by engaging in professional development *(see Glossary, "Environmental issues")*.

~~CRNA~~ Faculty

14. Didactic faculty meet the ~~governing body~~conducting institution's requirements or degree granting institution's requirements, as applicable, for teaching doctoral level courses.

* 15. CRNA faculty have a current license or privilege to practice as a registered professional nurse and/or APRN in compliance with state law[4] *(see Glossary, "Advanced Practice Registered Nurse"and "Privilege to practice").*

* 16. CRNA faculty have current certification or current recertification by the NBCRNA.

17. ~~Core CRNA program faculty, including t~~The program administrator, assistant program administrator(s), and course directors~~,~~ have formal instruction in curriculum, evaluation, and instruction *(see Glossary "Formal instruction in curriculum, evaluation, and instruction").*

[4] A federal government/military nurse practicing exclusively in federal or military systems only needs 1 license from any state or territory per US federal government/military policy.

18. Only CRNAs and physician anesthesiologists ~~faculty may~~ teach clinical anesthesia content.

19. Faculty who teach clinical anesthesia content must demonstrate clinical competency *(see Glossary, "Demonstration of clinical competency").*

~~***Non-CRNA Faculty***~~

20. Non-CRNA faculty must be academically prepared for the areas in which they teach *(see Glossary, "Academic preparation").*

21. Faculty who teach in distance education courses are educated in distance education methodologies.

* Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation.

C. STUDENT STANDARDS

Selection and Admissions

1. The program enrolls only students who by academic and experiential achievement are of the quality appropriate for the profession and who have the ability to benefit from their education *(see Glossary, "Ability to benefit").*

* 2. Admission requirements include:

2. 1. A baccalaureate or graduate degree in nursing or an appropriate major.

2. 2. An unencumbered license as a registered professional nurse and/or an APRN in the United States or its territories or protectorates *(see Glossary, "Advanced Practice Registered Nurse").*

2. 3. A minimum of 1 year full-time ~~work~~ critical care experience, or its part-time equivalent, as a registered nurse in a critical care setting~~. The applicant must have developed as an independent decision-maker capable of using and interpreting advanced monitoring techniques based on knowledge of physiological and pharmacological principles~~ *(see Glossary, "Critical care experience").*

Student Participation and Conduct

3. Students demonstrate professionalism, including a commitment to academic and personal integrity.

4. Students keep accurate and complete clinical experience logs that are reviewed by program faculty on a regular basis *(see Glossary, "Counting clinical experiences").*

5. Students are certified in Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) before beginning clinical activities.

* Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation.

D. GRADUATE STANDARDS

Patient Safety

The graduate must demonstrate the ability to:

* 1. Be vigilant in the delivery of patient care.

* 2. Refrain from engaging in extraneous activities that abandon or minimize vigilance while providing direct patient care (e.g., texting, reading, emailing, etc.).

* 3. Conduct a comprehensive equipment check.

* 4. Protect patients from iatrogenic complications.

Perianesthesia

The graduate must demonstrate the ability to:

* 5. Provide individualized care throughout the perianesthesia continuum.

* 6. Deliver culturally competent perianesthesia care *(see Glossary, "Culturally competent").*

* 7. Provide anesthesia services to all patients across the lifespan *(see Glossary, "Anesthesia services" and "Across the lifespan").*

* 8. Perform a comprehensive history and physical assessment *(see Glossary, "Comprehensive history and physical assessment").*

* 9. Administer general anesthesia to patients with a variety of physical conditions.

* 10. Administer general anesthesia for a variety of surgical and medically related procedures.

* 11. Administer and manage a variety of regional anesthetics.

* 12. Maintain current certification in ACLS and PALS.

Critical Thinking

The graduate must demonstrate the ability to:

* 13. Apply knowledge to practice in decision making and problem solving.

* 14. Provide nurse anesthesia services based on evidence-based principles.

* 15. Perform a preanesthetic assessment before providing anesthesia services.

* 16. Assume responsibility and accountability for diagnosis.

* 17. Formulate an anesthesia plan of care before providing anesthesia services.

* 18. Identify and take appropriate action when confronted with anesthetic equipment-related malfunctions.

* 19. Interpret and utilize data obtained from noninvasive and invasive monitoring modalities.

* 20. Calculate, initiate, and manage fluid and blood component therapy.

* 21. Recognize, evaluate, and manage the physiological responses coincident to the provision of anesthesia services.

* 22. Recognize and appropriately manage complications that occur during the provision of anesthesia services.

* 23. Use science-based theories and concepts to analyze new practice approaches.

* 24. Pass the National Certification Examination (NCE) administered by the NBCRNA.

Communication

The graduate must demonstrate the ability to:

* 25. Utilize interpersonal and communication skills that result in the effective exchange of information and collaboration with patients and their families**.**

* 26. Utilize interpersonal and communication skills that result in the effective interprofessional exchange of information and collaboration with other healthcare professionals.

* 27. Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of interprofessional care.

* 28. Maintain comprehensive, timely, accurate, and legible healthcare records.

* 29. Transfer the responsibility for care of the patient to other qualified providers in a manner that assures continuity of care and patient safety.

* 30. Teach others *(see Glossary, "Teach others")*.

Leadership

The graduate must demonstrate the ability to:

* 31. Integrate critical ~~and reflective~~ thinking and self-reflection in ~~his or her~~one's approach to leadership ~~approach~~.†

* 32. Provide leadership that facilitates intraprofessional and interprofessional collaboration.

Professional Role

The graduate must demonstrate the ability to:

* 33. Adhere to the *Code of Ethics for the Certified Registered Nurse Anesthetist*.

* 34. Interact on a professional level with integrity.

* 35. Apply ethically sound decision-making processes.

* 36. Function within legal and regulatory requirements.

* 37. Accept responsibility and accountability for ~~his or her~~one's practice.

* 38. ~~Provide~~ Understand the importance of providing cost-effective anesthesia services ~~to patients in a cost-effective manner~~. †

* 39. Demonstrate knowledge of wellness and substance use disorder in the anesthesia profession through completion of content in wellness and substance use disorder *(see Glossary, "Wellness and substance use disorder").*

* 40. Inform ~~the public~~others of the role and practice of the CRNA.

* 41. Evaluate how public policy ~~making strategies~~ impacts the financing and delivery of healthcare. †

* 42. Advocate for health policy change to improve patient care.

* 43. Advocate for health policy change to advance the specialty of nurse anesthesia.

* 44. Analyze strategies to improve patient outcomes and quality of care.

* 45. Analyze health outcomes in a variety of populations.

* 46. Analyze health outcomes in a variety of clinical settings and healthcare systems. †

~~* 47. Analyze health outcomes in a variety of systems.~~

* 478. Disseminate scholarly work *(see Glossary, "Dissemination of scholarly work")*.

* 489. Use information/communication ~~systems/~~technologies~~y~~ and informatics processes to support and improve patient care *(see Glossary, "Information/communication technologies and informatics processes")*. †

* 49~~50~~. Use information/communication ~~systems/~~technologies~~y~~ and informatics processes to support and improve healthcare systems *(see Glossary, "Information/communication technologies and informatics processes")*. †

* 501~~1~~. Analyze business practices encountered in nurse anesthesia delivery settings.

* Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation.

† Effective for all students matriculating into an accredited program on or after January 1, 2026.

E. CURRICULUM STANDARDS

* 1. The curriculum is designed to award a Doctor of Nursing Practice or Doctor of Nurse Anesthesia Practice to graduate students who successfully complete graduation requirements unless a waiver for this requirement has been approved by the Council.

* 2. The curriculum is designed to focus on the full scope of nurse anesthesia practice including:

2. 1. Course(s): Separate courses in

- ~~-~~Advanced Physiology/Pathophysiology that is comprehensive and across the lifespan.
- Advanced Pharmacology that is comprehensive and includes pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all broad categories of agents.
- Advanced Health Assessment that is comprehensive and across the lifespan *(see Glossary, "Advanced health assessment")*
- Basic Principles in Nurse Anesthesia
- Advanced Principles in Nurse Anesthesia

~~Advanced Physiology/Pathophysiology, Advanced Pharmacology, Basic and Advanced Principles in Nurse Anesthesia, and Advanced Health Assessment *(see Glossary, "Advanced health assessment").*~~

~~2. 1.~~2. 2. Content: Advanced Physiology/Pathophysiology (120 contact hours), advanced pharmacology (90 contact hours), basic and advanced principles in nurse anesthesia (120 contact hours), research (75 contact hours), advanced health assessment (45 contact hours), human anatomy, chemistry, biochemistry, physics, genetics, acute and chronic pain management, 12-lead ECG interpretation[‡], radiology, ultrasound -guided regional and vascular techniques, point of care ultrasound, anesthesia equipment, professional role development, wellness and substance use disorder, informatics, ethical and multicultural healthcare including health disparities across populations[†], leadership and management, business of anesthesia/practice management, health policy, healthcare finance, integration/clinical correlation *(see Glossary, "12-lead ECG interpretation," "Advanced health assessment," "Health disparities across populations," ~~"Wellness and substance use disorder,"~~ "Pain management, acute," "Pain management, chronic," "Point of care ultrasound," "Professional role development," ~~"12-lead ECG interpretation," and~~ "Radiology," and "Wellness and substance use disorder").*

~~2. 2.~~2. 3. Clinical experiences (see Appendix).

3. The curriculum meets commonly accepted national standards for similar degrees *(see Glossary, "Commonly accepted national standards").*

4. The postbaccalaureate curriculum is a minimum of 3 years of full-time study or longer if there are periods of part-time study.[5]

5. The curriculum is composed of sequential and integrated courses designed to facilitate achievement of the program's terminal objectives.

6. All courses have clearly stated objectives/outcomes.

7. Distance education ~~programs and courses~~ satisfies~~y~~ accreditation standards and students achieve the same objectives/outcomes as traditional educational offerings[6].

8. The curriculum requires the student to complete scholarly work that demonstrates knowledge and scholarship skills within the area of academic focus *(see Glossary, "Scholarly work" and "Scholarship skills").*

9. The clinical curriculum provides students with experiences in the perioperative process that are unrestricted and promote their development as competent nurse anesthetists.

10. The program provides opportunities for students to obtain clinical experiences outside the regular clinical schedule by a call experience or other mechanism *(see Glossary, "Call experience").*

11. Simulated clinical experiences are incorporated in the curriculum *(see Glossary, "Simulated clinical experiences").*

12. The program designs, when ~~appropriate~~applicable, an experimental/innovative curriculum that enables graduates to attain certification in the specialty[7] (see Glossary, "Experimental curriculum" and "Innovative curriculum").

* Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation.

~~‡ Effective for all students matriculating into an accredited program on or after January 1, 2022.~~

† Effective for all students matriculating into an accredited program on or after January 1, 2026.

[5] Shorter programs of study can be submitted for consideration when accompanied by supporting rationale that ensures compliance with accreditation standards.

[6] In the event that distance courses have only been offered online, achievement of comparable outcomes can be demonstrated by course and instructor evaluations, students' final grades, programs' National Certification Examination (NCE) pass rates, and graduation rates. Refer *Accreditation Policies and Procedures Manual* for "Distance Education" policy and related application.

[7] May not be applicable to all accredited programs.

F. CLINICAL SITE STANDARDS

* 1. The program demonstrates it has sufficient clinical resources to ensure graduates individually meet all accreditation requirements.

2. The program has a legally binding contract with the clinical site(s) that outlines expectations and responsibilities of both parties.

3. The program appoints a CRNA coordinator for each clinical site who possesses a master's degree (doctoral preparation preferred) to guide student learning. A physician anesthesiologist may serve in this capacity.[8]

4. The program demonstrates that the educational environment at all clinical sites is conducive to student learning.

* 5. Supervision at clinical sites is limited to CRNAs and physician anesthesiologists who are institutionally credentialed to practice and immediately available for consultation *(see Glossary, "Clinical supervision")*.

6. Clinical site orientations are provided that outline role expectations and responsibilities of students and identify available learning resources.

* 7. The clinical supervision ratio of students to ~~instructor~~ clinical preceptor ensures patient safety by taking into consideration: the complexity of the anesthetic and/or surgical procedure, the student's knowledge and ability, and the comorbidities associated with the patient. At no time does the number of students directly supervised by an individual clinical ~~instructor~~ preceptor exceed 2:1 *(see Glossary, "Clinical supervision").*

8. The program restricts clinical supervision in nonanesthetizing areas to credentialed experts who are authorized to assume responsibility for the student *(see Glossary, "Credentialed expert").*

* 9. Student time commitment consists of a reasonable number of hours that does not exceed 64 hours per week *(see Glossary, "Reasonable time commitment").*

* Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation.

[8]An exception for the master's degree requirement must receive Council approval. An exception, if granted, will be effective for 5 years from the date of final Council approval.

G. POLICY STANDARDS

1. Accurate cumulative records of educational activities are maintained.

* 2. Truth and accuracy are evidenced in recruiting and admissions practices, academic calendars, catalogs, publications, grading, and advertising.

* 3. The following are published annually:

3. 1. accurate information about the nurse anesthesia program's programmatic accreditation status

3. 2. the specific academic program covered by the accreditation status

3. 3. the name, address, telephone number, and URL (http://coacrna.org) of the Council on Accreditation of Nurse Anesthesia Educational Programs

3. 4. for the most recent graduating class, the:

3.4.1. attrition

3.4.2. employment of graduates as nurse anesthetists within 6 months of graduation

3.4.3. NBCRNA NCE pass rate for first-time takers *(see Glossary, "Published outcomes")*

4. Policies and procedures that are fair, equitable, and do not discriminate are defined *(see Glossary, "Nondiscriminatory practice").*

5. Policies and procedures regarding academic integrity are defined and used in all educational activities.

6. Policies outline the procedures for student discipline and dismissal.

7. The program demonstrates that it processes complaints, grievances, and appeals in a timely and equitable manner affording due process.

* 8. The program forbids the employment of nurse anesthesia students as nurse anesthetists by title or function.

* Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation.

H. EVALUATION STANDARDS

1. The program has a written systematic plan for continuous self-assessment that incorporates the following[9]:

* 1.1. Formative and summative evaluations of each student that are conducted for the purpose of counseling students and documenting student achievement.

1.1.1. Terminal evaluation is completed to demonstrate student achievement of Graduate Standards D1-D51.

1.1.2. There is an established assessment procedure to verify competence in scholarship skills relevant to the area of academic focus.

1.1.3. Faculty advising provides students with ongoing feedback, both formal and informal.

* 1.2. Students evaluate the quality of:

1.2.1. courses

1.2.2. didactic instruction

1.2.3. clinical sites

1.2.4. clinical instruction

1.2.5. teaching and learning environment

1.2.6. advising/mentorship

1.2.7. their own achievement (self-evaluation)

1.2.8. program

1.2.8.1. institutional/program resources

1.2.8.2. student services *(see Glossary, "Student services")*

[9] Refer *Accreditation Policies and Procedures* Manual, "Plans for Purposeful Change and Needed Improvement" policy, for additional guidance.

1.2.8.3. curriculum

1.3. Faculty evaluate the quality of:

1.3.1. faculty services

1.3.2. the program

1.3.3. their own contributions to teaching, practice, service, and scholarly activities (self-evaluation)

1.4. Alumni evaluate:

1.4.1. the quality of the program

1.4.2. their preparation to enter anesthesia practice (self-evaluation)

1.5. Employers evaluate the performance of recent graduates.

* 1.6. Outcome measures of academic quality including:

1.6.1. student attrition

1.6.2. NBCRNA NCE pass rates and mean scores

1.6.3. employment rates (*see Glossary, "Graduate employment rate"*)

1.6.4. any other outcome measures of student achievement identified by the program and/or institution *(see Glossary, "Academic quality")*

* 2. The program utilizes evaluation data (including that from the systematic plan for continuous self-assessment) to:

2.1. monitor and improve program quality and effectiveness

2.2. monitor and improve student achievement

2.3. monitor and improve advising/mentorship

2.4. monitor compliance with accreditation requirements and initiate corrective action should areas of noncompliance occur.

* Failure to fully comply with one or more of these Standards is considered to be of critical concern in decisions regarding nurse anesthesia program accreditation.

Standards for Practice Doctoral Degrees for CRNAs

The following additional requirements apply to programs offering a post-master's doctoral degree program for CRNAs*. Item 1 is an additional Standard applicable to post-master's doctoral degree programs for CRNAs; CRNA completion programs must also satisfy the Standards in items 2 and 3.

1. Anesthesia must be referenced in the title of the practice doctoral degree. If not, a significant component of the curriculum must include anesthesia-related content.

2. The program must demonstrate that the graduate degree program for CRNAs is in compliance with Graduate Standards D14, D23, D26, D31, D32, D33, D35, and D40 to D51.

3. The program must demonstrate that the graduate degree program for CRNAs is in compliance with Curriculum Standards E1, E3, and E5 to E8.

* Programs offering a single degree plan for both a post-masters doctoral degree program for CRNAs and an entry-into-practice program do not need to address the above standards *(see Glossary, "Single degree plan")*.

Appendix

The minimum number of clinical hours is 2,000 *(See Glossary, "Clinical hours").*

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases
Patient Physical Status		
Class I		
Class II		
Classes III-VI (total of a, b, c, & d)	200	300
a. Class III	50	100
b. Class IV	10	100
c. Class V	0	5
d. Class VI		
Total cases	~~650~~700[†]	~~700~~ 750[†]
Patient Assessment[‡]		
Initial preanesthetic assessment[‡]	50	100
Postanesthetic assessment[‡]	50	150
Comprehensive history and physical[‡]		
a. Actual[‡]		
b. Simulated[‡]		
Assessment of chest X-ray[10]	5	10
Special Cases		
Geriatric 65+ years	100	200
Pediatric		

[10] This experience can be gained in a healthcare institution, classroom, simulation center, or by using online resources. One case should be counted as the evaluation of one chest x-ray, regardless of the number of items assessed on that x-ray.

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases
Pediatric 2 to 12 years	30	75
Pediatric (less than 2 years)	10	25
Neonate (less than 4 weeks)		5
Trauma/emergency (E)	30	50
Obstetrical management (total of a & b)	30	40
a. Cesarean delivery	10	15
b. Analgesia for labor	10	15
Pain management encounters *(see Glossary, "Pain management encounters")*	15	50

Anatomical Categories[11]

Intra-abdominal	75	
Intracranial (total of a & b)	5	20
a. Open	3	10
b. Closed		
Oropharyngeal	20	
Intrathoracic (total of a, b, & c)	15	40

[11] Count all that apply

a. Heart		
1. Open heart cases (total of a & b)	5	10
a) With cardiopulmonary bypass		
b) Without cardiopulmonary bypass		
2. Closed heart cases		10
b. Lung	5	
c. Other		
Neck	5	10
Neuroskeletal	20	
Vascular	10	30

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases
Methods of Anesthesia		
Moderate/deep sedation	25	50
General anesthesia	400	
Perform a general anesthetic induction with minimal or no assistance[±]	50	100
Inhalation induction	25	40
Mask ventilation ~~management~~[12]	~~25~~100[†]	~~35~~ 200[†]
Induction		
Maintenance	25[†]	
Resuscitation		
Supraglottic airway devices (total of a & b)	35	50
a. Laryngeal mask		

[12] ~~A general anesthetic that is administered by mask, exclusive of induction.~~Positive-pressure ventilation administered using a mask during induction and/or maintenance of a case as well as resuscitation events.

b. Other		
Tracheal intubation (total of a & b)	250	
a. Oral		
b. Nasal		5
Alternative tracheal intubation/endoscopic techniques[13] (total of a & b) *(see Glossary, "Alternative tracheal intubation techniques")*	25	50
a. Endoscopic techniques[14] (total of 1 & 2)	5	15
1. Actual tracheal tube placement		
2. Simulated tracheal tube placement		
3. Airway assessment		
b. Other techniques	5	25
Emergence from anesthesia	300	

CLINICAL EXPERIENCES	**Minimum Required Cases**	**Preferred Number of Cases**
Regional techniques		
Actual administration (total of a, b, c, & d)	35	
a. Spinal (total of 1 & 2)	10	50
1. Anesthesia		
2. Pain management		
b. Epidural (total of 1 & 2)	10	50
1. Anesthesia		
2. Pain management		

[13] Tracheal intubations accomplished via alternative techniques should be counted in both tracheal intubation and the alternative tracheal intubation categories.
[14] Simple models and simulated experiences may be used to satisfy part of this requirement. No clinical experiences can be obtained by simulation alone.

c. Peripheral[15] (total of 1 &2)	10	50
1. Anesthesia		
Upper		
Lower		
2. Pain management		
Upper		
Lower		
d. Other[16] (total of 1 & 2)		
1. Anesthesia		
2. Pain management		
Management (total of 1 & 2)	35	50
1. Anesthesia		
2. Pain management		
~~Moderate/deep sedation~~	~~25~~	~~50~~

CLINICAL EXPERIENCES	Minimum Required Cases	Preferred Number of Cases

Arterial Technique

Arterial puncture/catheter insertion	25	
Intra-arterial blood pressure monitoring	30	

Central Venous Catheter

Placement[17]– Non-PICC (total of a & b)	10	15
a. Actual		5
b. Simulated		

[15] Simple models and simulated experiences may be used to satisfy part of this requirement. No clinical experiences can be obtained by simulation alone.
[16] Examples include truncal, cutaneous, head, and neck blocks (e.g., transversus abdominis plane, rectus sheath, ilioinguinal, iliohypogastric, oral, and maxillofacial blocks).
[17] Simple models and simulated experiences may be used to satisfy this requirement. **No clinical experiences can be obtained by simulation alone**. Insertion of peripherally inserted central catheters (PICC) does not meet the requirements for central line placement.

Placement – PICC (total of a & b)		
a. Actual		
b. Simulated		
Monitoring	~~15~~10†	15†

Pulmonary Artery Catheter

Placement		5
Monitoring		10

Line Placements and Hemodynamic Monitoring

Advanced minimally- and non-invasive hemodynamic monitoring (*see Glossary, "Advanced noninvasive hemodynamic monitoring"*		
Intravenous catheter placement	100	

Ultrasound-guided Techniques~~Other~~

Ultrasound-guided techniques (total of a & b)	20±	
a. Regional[18]	10±	
1. Actual regional±		
2. Simulated regional±		
b. Vascular[19]	10±	
1. Actual vascular±		
2. Simulated vascular±		
Point of Care Ultrasound (POCUS)±, [20]		
a. Actual±		
b. Simulated±		
~~Intravenous catheter placement~~	~~100~~	

[18] Regional includes neuraxial, truncal, and peripheral nerve blocks. No clinical experiences can be obtained by simulation alone.

[19] Vascular includes arterial, peripherally inserted central catheters, central venous, and peripheral access. No clinical experiences can be obtained by simulation alone.

[20] Refers to the use of portable ultrasonography at a patient's bedside for diagnostic (e.g., symptom or sign-based examination) purposes. This is exclusive of using ultrasound for image-guidance purposes such as for regional anesthesia or vascular access.

~~Advanced noninvasive hemodynamic monitoring~~		
~~Assessment of chest X-ray~~[~~†, 21~~]	~~5~~	~~10~~

~~†~~ ~~Effective for all students matriculating into an accredited program on or after January 1, 2022.~~

† Effective for all students matriculating into an accredited program on or after January 1, 2026.

~~21~~ ~~This experience can be gained in a healthcare institution, classroom, simulation center, or by using online resources. One case should be counted as the evaluation of one chest x-ray, regardless of the number of items assessed on that x-ray.~~

Glossary

12-lead ECG interpretation - Didactic curricular content in the use of 12-lead ECG to detect cardiac abnormalities having perianesthesia implications.

Ability to benefit - The ability to benefit refers to the integrity of a college/university or education program to enroll only those individuals with the capacity to succeed and gain value from the education. This may be demonstrated through programs' admission criteria and outcome data.

Academic preparation - Academic preparation includes degree specialization, specialty course work, and other preparation to address the major concepts included in the courses taught.

Academic quality - Academic quality refers to results associated with teaching, learning, research, and service within the framework of the institutional mission. Academic quality requires an effective learning environment and sufficient resources for faculty and students to obtain the objectives of the program and meet accreditation standards.

Across the lifespan - Across the lifespan refers to a patient population focus of families and individuals. The continuum of care ranges from the prenatal period to end of life with health statuses ranging from healthy through all levels of acuity including immediate, severe, or life-threatening illnesses or injury.

Advanced health assessment - A course in advanced health assessment includes assessment of all human systems, advanced assessment techniques, diagnosis, concepts, and approaches.

Advanced noninvasive hemodynamic monitoring – The use of advanced non-invasive technologies used to monitor hemodynamic variables such as central venous pressure, cardiac output, vascular resistance, and ventricular performance. This does not include routine monitors such as the automated blood pressure cuff. Examples may include but are not limited to FloTrac®, ClearSight®, Esophageal Doppler, PiCCO®, and LiDCO®.

Advanced Practice Registered Nurse (APRN) - APRN refers to advanced practice nurses in the roles of Certified Registered Nurse Anesthetists, certified nurse-midwives, certified nurse practitioners, and clinical nurse specialists. It is recognized that states vary in the titles they use for the different advanced practice nursing roles. Programs may enroll advanced practice nurses regardless of title authorized by state.

Alternative tracheal intubation techniques - Alternative tracheal intubation techniques include, but are not limited to, fiberoptic intubation, light wand, retrograde tracheal intubation, transtracheal jet ventilation, gum elastic bougie/tracheal tube changer, laryngeal mask airway (LMA) guided intubation, cricothyroidotomy, video assisted laryngoscopy, etc. The placement of supraglottic airway devices is not included in this definition because that clinical experience is counted separately. If the student inserts an LMA and then performs an LMA-guided endotracheal intubation, the student would count both experiences in the appropriate categories.

Anesthesia services - Anesthesia and anesthesia-related care represent those services that anesthesia professionals provide upon request, assignment, and referral by the patient's healthcare provider authorized by law, most often to facilitate diagnostic, therapeutic, and surgical procedures. In other instances, the referral or request for consultation or assistance may be for management of pain associated with obstetrical labor and delivery, management of acute and chronic mechanical ventilation, or management of acute and chronic pain through the performance of selected diagnostic and therapeutic blocks or other forms of pain management.

Call experience - Call is a planned clinical experience outside the normal operating hours of the clinical facility, for example, after 5 PM and before 7 AM, Monday through Friday, and on weekends. Assigned duty on shifts falling within these hours is considered the equivalent of an anesthesia call, during which a student is afforded the opportunity to gain experience with emergency cases. Although a student may be assigned to a 24-hour call experience, at no time may a student provide direct patient care for a period longer than 16 continuous hours.

Clinical hours - Clinical hours include time spent in the actual administration of anesthesia (i.e., anesthesia time) and other time spent in the clinical area. Examples of other clinical time would include in-house call, preanesthesia assessment, postanesthetic assessment, patient preparation, operating room preparation, and time spent participating in clinical rounds. Total clinical hours are inclusive of total hours of anesthesia time; therefore, this number must be equal to or greater than the total number of hours of anesthesia time.

Clinical supervision - Clinical supervision of students must not exceed (1) 2 students to 1 CRNA, or (2) 2 students to 1 physician anesthesiologist, if no CRNA is involved. The CRNA and/or physician anesthesiologist are the only individual(s) with responsibility for anesthesia care of the patient, and have responsibilities including, but not limited to: providing direct guidance to the student; evaluating student performance; and approving a student's plan of care. There may be extenuating circumstances where supervision ratios may be exceeded for brief periods of time (e.g., life-threatening situations); however, the program must demonstrate that this is a rare situation for which contingency plans are in place (e.g., additional CRNA or physician anesthesiologist called in, hospital diverts emergency cases to maximize patient safety). Clinical supervision must be consistent with the COA Standards (i.e., clinical oversight is the responsibility of a CRNA or physician anesthesiologist only). The program is responsible for ensuring its clinical supervision requirements are consistent with the COA Standards and that students are aware of these requirements and know who is supervising them in the clinical area.

Commonly accepted national standards - Commonly accepted national standards are standards that are generally recognized as determining the quality of similar degrees by the larger community of higher education in the United States. Examples include (but are not limited to): the *Essentials* of the American Association of Colleges of Nursing; applicable institutional accreditor standards, and the accreditation standards for other clinical doctorate degrees (e.g., the Commission on Accreditation in Physical Therapy Education, the Accreditation Council for Pharmacy Education).

Competence - The array of abilities (knowledge, skills, and attitudes, or KSA) across multiple domains or aspects of performance in a certain context. Statements about competence require descriptive qualifiers to define the relevant abilities, context, and stage of training. Competence is multi-dimensional and dynamic. It changes with time, experience, and setting.

Competency - An observable ability of a health professional, integrating multiple components such as knowledge, skills, values, and attitudes. Since competencies are observable, they can be measured and assessed to ensure their acquisition.

Comprehensive history and physical assessment - Comprehensive history and physical assessment includes the history, physical, and psychological assessment of signs and symptoms, pathophysiologic changes, and psychosocial variations of a patient. The assessment includes an evaluation of the body and its functions using inspection, palpation, percussion, auscultation, and advanced assessment techniques, including but not limited to laboratory, radiologic, and other diagnostic studies (e.g., chest X-ray, 12-lead ECG, point-of-care ultrasound), as appropriate. A complete physical assessment incorporates cultural and developmental variations and needs of a patient. The results of a comprehensive history and physical assessment are used to establish a differential diagnosis based on assessment data and develop an effective and appropriate plan of care for a patient. Specific assessment related to anesthesia should be stressed in the practical experience of nurse anesthesia students.

Conducting institution - The legal entity (institution or organization) that assumes sole, primary, or shared responsibility for the conduct of a program including budgetary support; responsible for ensuring that the program has complied with accreditation requirements.

Counting clinical experiences - Students can only take credit for a case where they personally provide anesthesia for critical portions of the case. A student may only count a procedure (e.g., central venous catheter placement, regional block, etc.) that he or she actually performs. Students cannot take credit for an anesthetic case if they are not personally involved with the management of the anesthetic or only observe another anesthesia provider manage a patient's anesthetic care. Two learners should not be assigned to the same case, except when the case provides learning opportunities for 2 students, and 2 anesthesia providers are necessary due to the acuity of the case. The program will need to justify any deviation from this requirement.

Credentialed expert - An individual awarded a certificate, letter, or other testimonial to practice a skill in an institution is a credentialed expert. The credential must attest to the bearer's right and authority to provide services in the area of specialization for which he or she has been trained. Examples are: a pulmonologist who is an expert in airway management, an emergency room physician authorized by an anesthesia department to assume responsibility for airway management, or a neonatologist who is an expert in airway management.

Critical care experience - Critical care experience must be obtained in a critical care area within the United States, its territories or a US military hospital outside of the United States. During this experience, the registered professional nurse has developed critical decision making and

psychomotor skills, competency in patient assessment, and the ability to use and interpret advanced monitoring techniques. A critical care area is defined as one where, on a routine basis, the registered professional nurse manages one or more of the following: invasive hemodynamic monitors (e.g., pulmonary artery, central venous pressure, and arterial catheters), cardiac assist devices, mechanical ventilation, and vasoactive infusions. Examples of critical care units may include but are not limited to: surgical intensive care, cardiothoracic intensive care, coronary intensive care, medical intensive care, pediatric intensive care, and neonatal intensive care. Those who have experiences in other areas may be considered provided they can demonstrate competence with managing unstable patients, invasive monitoring, ventilators, and critical care pharmacology; however, programs are responsible for determining whether the applicants' experiences are equivalent to those specified in the above examples.

Culturally competent - Cultural competency is demonstrated by effectively utilizing various approaches in assessing, planning, implementing, and administering anesthesia care for patients based on culturally relevant information.

Demonstration of clinical competency - The academic environment must provide substantial access to practice experts in order for students to learn. As the competencies needed to practice are rapidly changing, students must have access to instructors who possess clinical content knowledge and create a learning environment that is characterized by a culture of inquiry and practice scholarship that exemplifies rapid translation of new knowledge into practice and utilizes evaluation of practice-based models of care.

Clinical competence may be demonstrated by an instructor's involvement in one or more of the following:

- Current clinical practice
- Research in clinical area
- Education in the clinical area
- Utilization of evidence-based practice in instruction, in consultation with clinical experts as appropriate
- Participation in continuous professional development program

Dissemination of scholarly work - Dissemination of scholarly work contributes to the profession. Dissemination methods depend on the program or institution and may include a combination of methods. Dissemination includes a final written product that is presented to stakeholders at the university or at a local, state, national, or international meeting. Other methods for disseminating the scholarly product to multiple stakeholders may include: poster presentations; manuscript under review and/or submission for publication; in-service education; or podcasts.

Environmental issues - Environmental issues are surrounding conditions, influences, or forces that may impact nurse anesthesia programs and nurse anesthesia practice. Environmental issues can include but are not limited to community and workforce needs, changes in financial and clinical resources, state and federal regulatory requirements, accreditation requirements, scope of practice, educational environments, healthcare reimbursement, and technological advancements.

Program administrators' knowledge of environmental issues may be demonstrated by their attendance at professional meetings, active engagement in state and/or national professional associations, active participation on program and conducting institutions' committees, and scholarly activities.

Experientially qualified - Program administrators must possess: (a) clinical experience as a CRNA~~;~~ ~~(b) graduate preparation in the basic and clinical sciences relevant to nurse anesthesia practice~~; (b~~c~~) formal instruction in curriculum, evaluation, and instruction; (c~~d~~) current knowledge of CRNA practice and related professional issues; and (~~e~~d) current knowledge of institutional and programmatic accreditation requirements for nurse anesthesia educational programs (as evidenced through prior experience with applicable institutional accreditation reviews, active participation in development of a Self Study and completion of a COA onsite review, documentation of a detailed plan or completion of formal mentorship activities with an experienced CRNA program administrator, or other activities). Academic experience is required; a~~A~~dministrative experience is preferred.

Assistant program administrators must possess: (a) clinical experience as a CRNA~~; (b) graduate preparation in the basic and clinical sciences relevant to nurse anesthesia practice~~; (~~c~~b) formal instruction in curriculum, evaluation, and instruction; (c~~d~~) current knowledge of CRNA practice and related professional issues; and (~~e~~d) current knowledge of institutional and programmatic accreditation requirements for nurse anesthesia educational programs (as evidenced through prior experience with applicable institutional accreditation reviews, active participation in development of a Self Study and completion of a COA onsite review, documentation of a detailed plan or completion of formal mentorship activities completed with an experienced CRNA program administrator,or other activities). Academic experience is preferred.

Experimental curriculum - A curriculum that is being tested to determine whether it will produce expected outcomes that may or may not become permanent.

Formal instruction in curriculum, evaluation, and instruction - Formal instruction in curriculum, evaluation, and instruction includes completed educational content evidenced on a transcript from an accredited institution of higher education, an AANA approved continuing education (CE) program, or a CE program approved by another nationally recognized professional approval organization.

Full scope of nurse anesthesia practice - Preparation of graduates who can administer anesthesia and anesthesia-related care in five general categories[22]: (1) preanesthetic/preprocedure; (2) intraoperative/intraprocedure; (3) postoperative/ postprocedure; (4) pain management; and (5) other services. These are general categories. Scope of practice is dynamic and evolving.

[22] "Scope of Nurse Anesthesia Practice" approved by the AANA Board of Directors, Park Ridge, IL, February 2020 https://issuu.com/aanapublishing/docs/scope_of_nurse_anesthesia_practice_2.23?fr=sNDg2MDU2NDAxMjU

Full-time program administrator - A full-time program administrator is a CRNA who by title and function directs the organizational administration of a nurse anesthesia program.~~;~~ The administrator must have sufficient time to ~~providing~~ provide leadership and oversight of all aspects of the educational program, including but not limited to; governance~~,~~; budget preparation; didactic and clinical curriculum~~,~~; recruitment~~,~~; and evaluation. The workload may include a reasonable teaching commitment. Engagement in direct patient care activities, including supervising nurse anesthesia student clinical performance, does not qualify as meeting organizational administrative duties.

Graduate employment rate - Graduate employment is defined as occupational engagement in, or an offer of occupational engagement in, any setting that requires performance of duties within the scope of practice of the Certified Registered Nurse Anesthetist (CRNA) as a condition of employment.

Health disparities across populations - Differences in health outcomes among population groups, including but not limited to, variations in rates of illness, injury, violence, or access to resources for achieving good health that are avoidable and tend to affect groups facing social or economic challenges.

Information/communication technologies and informatics processes - Information and communication technologies are used to provide care, gather data, form information to drive decision making, and support professionals as they expand knowledge and wisdom for practice. Informatics processes and technologies are used to manage and improve the delivery of safe, high-quality, and efficient healthcare services in accordance with best practice and professional and regulatory standards.

Innovative curriculum - A new or creative way to introduce a curriculum or program that may become permanent. Programs that are developed to prepare broad-based, competent nurse anesthetists but do not necessarily comply with Council's requirements pertaining to specific class hours or the details of the practical experiences.

Institutional accreditor - The institution where a degree is earned must be accredited by an agency that is recognized by the US Secretary of Education as a reliable authority for the quality of training offered.

Nondiscriminatory practice - Nondiscriminatory practice is the practice of treating all individuals, including applicants, without regard to race, color, national origin, gender, marital status, sexual orientation, religion, age or disability, consistent with law. Although an applicant should not be required to provide information regarding any protected characteristics, he or she can provide such information on a voluntary basis. An applicant may be asked if he or she can perform the essential tasks or functions of a nurse anesthetist.

Pain management, acute - Acute pain management involves the treatment of pain of recent onset arising from a discrete cause, e.g., postoperative pain. Acute pain may result from both

surgical and nonsurgical origins. The experience of acute pain can initiate a cascade of emotional, physical, and/or social reactions.

Pain management, chronic - Chronic pain management involves the treatment of persistent pain or discomfort that continues for an extended period of time (usually involving durations greater than 3 to 6 months). Chronic pain may result from both surgical and nonsurgical origins. Some chronic conditions cause pain that may come and go for months or years or that may cause acute increases in the pain level. Persistent pain in certain circumstances becomes a disease with complex causal interactions of biological and psychological factors and not just a symptom.

Pain management encounters - Pain management encounters are individual one-on-one patient interactions for the express purpose of intervening in an acute pain episode or a chronic pain condition. Pain management encounters must include a patient assessment before initiating a therapeutic action. Pain management encounters include but are not limited to the following:

1. Initiation of epidural or intrathecal analgesia.
2. Facilitation or initiation of patient controlled analgesia.
3. Initiation of regional analgesia techniques for postoperative pain or other nonsurgical pain conditions including but not limited to plexus blocks, local anesthetic infiltration of incisions, intercostal blocks, etc.
4. Adjustment of drugs delivered, rates of infusion, concentration or dose parameters for an existing patient controlled analgesia or patient controlled epidural analgesia.
5. Pharmacologic management of an acute pain condition in postanesthesia care unit.
6. Trigger point injections.
7. Electrical nerve stimulation.

The administration of intravenous analgesics as an adjunct to a general or regional anesthesia technique does not constitute a pain management encounter for purposes of meeting minimal COA required clinical experiences. The administration of regional anesthesia as the primary anesthetic technique for a surgical procedure does not constitute an acute pain management encounter.

Point of care ultrasound (POCUS) - Refers to the use of portable ultrasonography at a patient's bedside for diagnostic (e.g., symptom or sign-based examination) purposes. This is exclusive of using ultrasound for image-guidance purposes such as for regional anesthesia or vascular access.

Privilege to practice - Privilege to practice is the authority to practice nursing in any compact state that is not the state of residency. Additional license is not granted for this authority.

Professional role development - Curricular content geared toward development as a professional nurse anesthetist includes but is not limited to the history of nurse anesthesia, standards of practice, professional ethics, regulation of practice (governmental and

nongovernmental), legal aspects of practice, the business of anesthesia and practice management, anesthesia reimbursement methodologies and payment policies, wellness and substance use disorder, as well as the structure and function of the state, national, and international nurse anesthesia organizations.

Protected time - While the definition of protected time may vary somewhat, the intent is to allow for reasonable balance between personal wellness and professional responsibilities. The institution shall summarize expected faculty efforts for all activities including administration, teaching, research, clinical, and other activities. Other activities include but are not limited to those related to maintaining professional competence, scholarly pursuits, and professional advancement. The total hours of faculty commitment must provide ample time for the faculty member to maintain healthy work-life balance.

Public member - A public member is someone who ensures that consumer concerns, public and private, are formally represented and who curbs any tendency to put program priorities before public interest. Such members should be selected at large, and they cannot be current or former members of the healthcare profession or current or former employees of the institution that is conducting the program. This also excludes anyone who might be perceived to have divided loyalties or potential conflicts of interest, such as a relative of an employee or former employee.

Published outcomes - A program must publish accurate data and information to the public on its performance. The data must demonstrate the degree to which it has achieved its purpose and objectives. Publications can be in various formats but must include posting the information on a website that is linked to the Council's *List of Accredited Educational Programs*.

Radiology - Didactic curricular content includes the fundamentals of radiologic principles and various techniques, topographic anatomy, contrast agents, radiation safety, proper techniques of safe fluoroscopic equipment use, evaluation of normal and abnormal radiographs of the chest where findings may have perianesthetic considerations, evaluation of proper positioning of various devices (e.g., endotracheal tubes, chest tubes) and invasive vascular access catheters (e.g., central venous catheters). Experiences in chest X-ray interpretation are offered.

Reasonable time commitment - A reasonable number of hours to ensure patient safety and promote effective student learning should not exceed 64 hours per week. This time commitment includes the sum of the hours spent in class and all clinical hours *(see Glossary, "Clinical hours")* averaged over 4 weeks. Students must have a 10-hour rest period between scheduled clinical duty periods (i.e., assigned continuous clinical hours). At no time may a student provide direct patient care for a period longer than 16 continuous hours.

Scholarly work - The doctoral program culminates with the completion of a scholarly work that demonstrates the ability to translate research findings into practice. This is an opportunity for the student to prepare a substantial final written work product, applicable to nurse anesthesia practice, that reflects the breadth of skills and knowledge the student has gained throughout the program of study. The final written work product may be in the form of a manuscript submitted for publication,

a poster presented at a national meeting, design of innovative clinical practice model, or other effective means of dissemination. The structure and process of the scholarly work will vary according to the requirements of the governing institution and conform to accepted educational standards at the practice doctoral level.

Scholarly work oversight - While CRNA and non-CRNA faculty involvement in the scholarly work development process may vary depending on the institution, college or program, or project scope, faculty with a CRNA credential must be involved in the process of planning, formation and evaluation of each scholarly project. Evaluation of scholarly work may include a combination of methods including faculty, expert and/or peer evaluation. Programs tailor scholarly work evaluation and approval processes per university, departmental, program or committee requirements.

Scholarship skills - Scholarship skills include but are not limited to the ability to perform extensive literature searches, critically appraise the available research evidence, synthesize information from diverse formats and sources, and cogently express understanding of complex concepts in both verbal and written forms, all while demonstrating high professional, personal, and intellectual integrity.

Significant increase - Programs planning a significant increase in first-year enrollment must submit the Council's Application for Increasing Class Size. The Council considers a "significant increase" one that meets any of the following conditions:

- A proposed one-time class size increase of four students **OR** an increase that results in an enrollment cohort of 10% or greater than the program's approved class size, whichever is smaller. **Example**: A program with an approved class size of 50 students is required to submit an Application for Increasing Class Size if planning to increase its enrollment for the next academic year to 54 students (since the program will have surpassed the four student increase threshold).
- Incremental increases that result in an overall increase of four students **OR** a 10% increase in enrollment, whichever is smaller, as compared to the program's approved class size. Programs will be required to submit an Application for Increasing Class Size as soon as the four student **OR** 10% increase in enrollment is met. **Example**: A program with an approved class size of 24 students is not required to submit an Application for Increasing Class Size if increasing enrollments to 25 students in Year 1 and 26 students in Year 2; however, submission of an Application for Increasing Class Size will be required for an enrollment increase to 27 in Year 3 (since the program will have surpassed the 10% threshold, rounded up to the nearest whole number).

For programs currently on National Certification Examination monitoring or with unresolved citations related to adequacy of resources, any increase in class size—even if one student—is considered significant. An Application for Increasing Class Size must be submitted to demonstrate there are adequate resources to support an education program that meets Council Standards.

Simulated clinical experiences - Simulated clinical experiences are learning experiences involving the imitation or representation of clinical activities that are designed for competency attainment, competency assessment, or competency maintenance. Simulation involves a wide range of options including but not limited to standardized patients, web-based simulation, computer-based simulation, manikin-based technologies ranging from low- to high-fidelity, task trainers, and holodecks. These clinical learning experiences are intended to help bridge didactic learning with safe and effective patient care delivery.

Single degree plan - A single degree plan is a degree plan with the following components: (1) there is 1 curriculum plan for both entry-into-practice students and master's prepared CRNAs seeking a practice doctoral degree; (2) students complete the same coursework; (3) the institution has in place an appropriate advanced standing policy, and master's prepared CRNAs are given advanced standing for coursework completed in their entry-into-practice program or completed as prerequisites for admission into the nurse anesthesia program; and (4) as a result, students in both programs meet same program terminal objectives on completion of the program.

Student services - Student services consist of assistance offered to students such as financial aid, health services, insurance, placement services, and counseling.

Sufficient time - The amount of time needed to complete a task or effectively achieve a goal; varies based on the complexity of the tasks to be completed and capabilities of the individuals assigned to perform the tasks. Time committed to faculty obligations may be communicated to COA in a completed Faculty Resources Matrix.

Teach others - Graduates may demonstrate ability to teach others by completing class presentations (face-to-face, virtual), making presentations to staff in the clinical setting (such as grand rounds-type presentations), teaching in a simulation or other laboratory setting, podium and poster presentations at local, state, national, or international meetings, patient education (including preoperative interviews), and other methods.

Title IV eligibility - Federal programs administered by the US Department of Education pursuant to Title IV of the Higher Education Act of 1965, as amended, have a requirement for institutions or programs participating in federally funded programs to be accredited by an institutional accreditor recognized by the US Secretary of Education. Examples of federal programs where accreditation provides a federal link to funding are Direct Loans, Student Aid Programs (Stafford, PLUS, and consolidation loans), and Federal Perkins Loans. Programs (and/or their conducting institutions) relying on the Council's accreditation to participate in the Title IV programs must demonstrate that they have reviewed the student loan default rates based on the most recent data provided by the U.S. Secretary of Education. These programs' conducting institutions entities must demonstrate compliance with an institution's responsibilities under Title IV of the Higher Education Act, as amended, including: results of financial or compliance audits and program reviews and other information that the U.S. Secretary of Education may request. The programs must provide evidence that students are made aware of their ethical responsibility regarding financial assistance they receive from public or private sources.

Unshared governance - An unshared governance is a formal arrangement in which 2 or more organizations or institutions are controlled by separate administrative authorities. Written affiliation agreements are necessary between entities that participate in an unshared governance arrangement.

Wellness and substance use disorder – Wellness is defined as a positive state of the mind, body, and spirit reflecting a balance of effective adaptation, resilience, and coping mechanisms in personal and professional environments that enhance quality of life. Substance use disorder (SUD), previously known as chemical dependency and often referred to as addiction, is a chronic and progressive disease which threatens physical and mental health and is individually characterized by a multiplicity of behaviors from misuse through dependency/addiction to alcohol and/or drugs (legal and illegal). The wellness/SUD curriculum must be an evidence-based program of study that may include but is not limited to the following five key conceptual components and learning objectives:

1. Importance of wellness to healthcare professionals: Describe the integration of healthy lifestyles, adaptive coping behaviors and tools to prioritize self-care and lessen career stressors. Build awareness of risk factors for substance use and mental health disorder and suicidal ideation. For workplace wellness, introduce conversational strategies for effective communications and the role CRNAs can take in promoting a health work environment.
2. Healthy lifestyles: Describe attitudes, behaviors, and strategies (i.e., healthy nutrition and hydration, exercise, sleep patterns, risk reduction) to support personal and professional well-being, encourage work/life balance, and mitigate physical or mental illness. Describe the effect of self-care as it relates to optimized patient safety.
3. Mental well-being: Describe adaptive behaviors to lessen the intensity of experienced stress and traumas to reduce the potential of unresolved feelings adversely affecting mental health. Discuss positive techniques, such as meditation, deep breathing, and counseling. Describe behaviors, feelings, and symptoms (observed or felt), indicating decline in ability to function to be able to recognize when professional mental health help is needed. Apply understanding to reduce stigma surrounding mental health challenges and treatment and know it is okay to ask for help when needed.
4. Identifying and addressing SUD: Describe basic pathophysiology and the disease model of addiction. Identify associated symptoms for early recognition. Describe the need and process for reporting a colleague to management to safely address. Identify and describe how to use safe appropriate strategies for successful intervention, evaluation for treatment, optimal treatment following recommendations specific to anesthesia professionals, aftercare, and monitoring for sustained recovery.
5. Reentry into the workplace after treatment for SUD: Broadly describes components of successful return to nurse anesthesia practice. These components include the frameworks for returning to administrative, academic and/or clinical anesthesia practice; strategies to increase the likelihood of sustained recovery upon re-

entering; and elements of lifestyle adaptation that lead to a healthy work/life balance for physical, emotional, and spiritual health.

History Addendum
History of Nurse Anesthesia Accreditation

On June 11, 1930, Agatha Hodgins, a nurse anesthetist, set forth her ideas regarding the essentials of a national organization for nurse anesthetists. They included (1) organization of a special group, (2) establishment of educational standards, (3) development of a state registration mechanism, (4) lobbying to practice without unwarranted criticism, and (5) improving the quality of work through study and research. She became the force behind establishing an organization dedicated to meeting the needs of the first nursing specialists. One of the initial objectives of the National Association of Nurse Anesthetists (NANA), whose name was later changed to the American Association of Nurse Anesthetists (AANA), was to develop the mechanisms for establishing a program to evaluate schools of nurse anesthesia.

Development of an Accreditation Process

An Education Committee was established in 1933 and with the assistance of other NANA committees, was charged with the development of educational standards, maintenance of a central bureau, and compilation of lists of approved schools and qualified instructors. To that end, preparations included identifying hospitals that operated schools of anesthesia, visiting those schools, and analyzing the content of their curriculums. These efforts resulted in written guidelines that established minimums of a 4 months' course of study, 250 anesthesia cases, and 75 hours of classroom instruction. The work of national committees over the following decades resulted in refinement of early education guidelines and identification of essential elements for nurse anesthesia education.

At the 1950 AANA Annual Meeting in Atlantic City, New Jersey, a resolution was unanimously adopted to create a plan for accreditation of nurse anesthesia schools. The formal accreditation program began 2 years later when the 1952 AANA Board of Trustees accepted criteria for accreditation of schools and delegated responsibility for its implementation to the Approval of Schools Committee. In addition to support shown by the vote of AANA members, the new process to accredit nurse anesthesia schools was endorsed by the American Hospital Association (AHA).

From 1937 to 1975, the educational guidelines, voluntary approval process, and eventually the accreditation process focused only on hospital-based schools of anesthesia. In 1970, the accreditation standards recommended that schools pursue the goal of offering college credit for coursework. The first mention by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA) accrediting degree granting schools was recorded in the 1976 standards indicating that the same standards applied to certificate and degree granting schools. Increasingly higher expectations for graduates to earn higher education degrees continued over

the years with accreditation standards for master's degree programs in 1998, optional research-oriented and practice-oriented doctoral degree programs in 2004, and draft standards for practice doctoral degree programs in 2014. All accredited nurse anesthesia programs offered master's level education as of October 1, 1998, and all programs must offer doctoral degrees by 2022.

Organizational Structure

In 1955, AANA was listed by the US Commissioner of Education as the recognized agency for accreditation of nurse anesthesia schools. The accreditation function was transferred to the AANA's Council on Accreditation of Nurse Anesthesia Educational Programs/Schools in 1975, in response to a major revision of the US Office of Education criteria. The revised criteria reflected many of the sociopolitical concerns of the time: (1) public accountability, (2) conflicts of interest, (3) consumer protection, (4) nondiscriminatory practices, (5) due process, and (6) community of interest involvement. These criteria mandated a structural change in the AANA that resulted in the formation of 3 semiautonomous councils: accreditation, certification, and practice. These councils were granted full functional and operational autonomy over the next 3 years, after proving their effectiveness in performing their respective responsibilities. A fourth council, recertification, was established in 1978 to serve as the monitoring body for the continuing education of nurse anesthetists.

The COA continued to exist from 1978 to 2009 as an autonomous, multidisciplinary body under the corporate structure of the AANA. In 2009, due to concerns by the AANA regarding compliance with Illinois State law and difficulty in the indemnification of COA directors and onsite reviewers, the COA separately incorporated. It is now recognized as a 501 (c) (3) accrediting organization by the Internal Revenue Service.

External Recognition of COA

The COA has been continuously recognized by the US Secretary of Education (formerly the US Commissioner of Education), US Department of Education (USDE) since 1975, as well as by the Council on Postsecondary Accreditation (COPA) or its successor, the Commission on Recognition of Postsecondary Accreditation (CORPA), since 1985. The Council for Higher Education Accreditation (CHEA) assumed CORPA's recognition functions in 1997. COA maintains USDE recognition under the legislative mandate that calls for the US Secretary of Education to identify reliable authorities for the quality of training that is offered by programs. COA maintains CHEA recognition to demonstrate its effectiveness in assessing and encouraging improvement and quality in programmatic accreditation. COA also subscribes to the Code of Good Practice for accrediting organizations through membership in the Association of Specialized and Professional Accreditors (ASPA).

COA's scope of accreditation was clarified by the USDE in 1993 and by CORPA in 1994 to delete reference to generic programs and specify nurse anesthesia programs that prepared graduates at the certificate, baccalaureate, master's, and doctoral degree levels. In 1997, the scope was revised to delete baccalaureate programs that no longer existed. Currently, the COA is identified by the USDE and CHEA as a nationally recognized accrediting agency for the accreditation of institutions and programs of nurse anesthesia at the post-master's certificate, master's, and doctoral degree levels, including programs offering distance education in the US and Puerto Rico.

Changes to the Higher Education Act, later named the Higher Education Opportunity Act (HEOA) have resulted in COA revising its standards with each reauthorization as needed to comply with federal regulations for accrediting agencies. Regulations have been adopted requiring accreditors to review an institution's and/or program's compliance with tuition in relation to the subject matter taught, default rates in student loan programs, records of student complaints, and attrition, graduation, certification, and employment rates among others.

A significant change in federal regulations occurred during the 1990s. Congress set stringent requirements for the federal government, state governments, and accrediting agencies, including COA, to increase oversight of institutions that participate in federal programs such as student financial aid. The original impetus for this action was an unacceptably high national rate of college graduates who failed to repay their federal student loans. As a result, only accrediting agencies linked to federal programs were eligible for new or continued recognition by the US Secretary of Education. Several accrediting agencies were "derecognized" during this time.

The COA continues to be officially recognized as the only accreditor for nurse anesthesia educational programs in the US. Graduation from a COA accredited program is required: (1) as the basis for ascertaining eligibility for federal programs under selected legislation, (2) to sit for the National Certification Examination, (3) for licensing in state rules and regulations, and (4) as a condition of employment.

COA Membership and Staff

Changes in COA membership occurred in May 2002 to comply with USDE requirements. The AANA Education Committee chair member was replaced with a CRNA educator member, and a second public member was added. At the COA’s October 2017 meeting, an additional educator director was added. The resulting COA membership includes 6 CRNA educators; 2 CRNA practitioners; 1 healthcare administrator; 1 academic administrator; 2 public members; and 1 nurse anesthesia student. COA's membership represents the various publics within the nurse anesthesia community of interest in which the profession resides. All representatives are members of the COA Board of Directors and have been vested with full decision-making and

voting powers with the exception of the nurse anesthesia student who serves as a nonvoting member.

COA staff consists of the Chief Executive Officer, accreditation specialists, and administrative support personnel. The Chief Executive Officer oversees operational activities and works closely with COA directors. Accreditation specialists work directly with program administrators, onsite reviewers, and consultants on accreditation and education related activities. Office operations specialists support the development, implementation, and ongoing support of technology and communication. In 2008, a major change in COA operations was the deployment of an electronic accreditation business process management system (i.e., COAccess).

Movement to Doctoral Education

Educational requirements have continued to increase since the establishment of a national organization for nurse anesthetists in the early 20th century. Schools of anesthesia have moved from apprenticeships at hospitals to programs affiliated with institutions of higher education offering graduate degrees. Official positions taken by the COA and AANA have facilitated this movement including support for nurse anesthesia program applicants to possess baccalaureate degrees, support for the education of nurse anesthetists at the postbaccalaureate level, transition of programs to the master's degree level, and more recently to the doctoral degree level.

The first COA requirement for degree programs was published in the 1990 standards for all nurse anesthesia programs to transition from awarding certificates to awarding master's degrees. By October 1, 1998, all accredited nurse anesthesia programs were offering master's level education.

Exploring doctoral level education for nurse anesthetists has been a methodical, deliberate process. In 1996, the AANA appointed a Doctoral Task Force to study the feasibility of doctoral degrees for nurse anesthetists. This task force found little support for the idea at that time. However, the COA published standards for optional practice-oriented and research-oriented doctoral degrees in 2004 because of the continued interest in and movement toward doctoral education for nurse anesthetists.

The transition of many healthcare roles to the practice doctorate for nurses and other nonphysicians in the US has been driven by national healthcare policy as attempts are made to reduce medical errors, mediate healthcare costs, and improve quality and outcomes for patients. Practice doctorates have been established for many health professions in this environment (e.g., optometry, audiology, pharmacy, and physical therapists). As part of this societal movement for health professions to hold practice doctorates, the American Association of Colleges of Nursing (AACN) published a position statement in October 2004 for its member

colleges to transition all advanced practice nursing education to the doctor of nursing practice degree. The AANA convened a summit in June 2005 to reexplore doctoral preparation of nurse anesthetists. Pursuant to its summit, the AANA appointed the Task Force on Doctoral Preparation for Nurse Anesthetists (DTF). The DTF held meetings between December 2005 and February 2007 for the purpose of developing options for the doctoral preparation of nurse anesthetists. The DTF provided its report to the AANA Board of Directors in April 2007. In June 2007, the AANA Board unanimously adopted a position statement to support doctoral education for entry into nurse anesthesia practice by 2025. The COA subsequently explored the accreditation ramifications of the AANA position statement regarding doctoral education. In January 2009, the COA voted to require nurse anesthesia educational programs to transition to a doctoral framework no later than January 1, 2022. All entry-into-practice graduates from nurse anesthesia educational programs will be required to possess a doctoral degree as of January 1, 2025.

The COA has taken key steps in transitioning to doctoral level education for nurse anesthetists. These included notification to accredited programs that: (1) the COA will not consider any new master's degree programs for accreditation beyond 2015; (2) students accepted into an accredited program on January 1, 2022 and thereafter must graduate with doctoral degrees; and (3) doctoral degrees will be required for the CRNA program administrators (program administrators and assistant administrators) in all doctoral programs by January 1, 2018. All degrees must be awarded by a college or university that is accredited by a nationally recognized institutional accreditor.

Recognizing the need to develop comprehensive standards for entry-into-practice doctoral programs, the COA subsequently appointed a Standards Revision Task Force (SRTF) in 2010. The SRTF performed extensive research and analysis of data both from within and external to nurse anesthesia education. The SRTF considered input from various communities of interest as it set about its work. These communities of interest included nurse anesthetists from varied practice settings, the AANA Board of Directors, the AANA Education Committee, the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA), student nurse anesthetists, other nursing groups, university officials, educational accreditors, healthcare administrators, physicians, related healthcare professions, regulatory authorities, payors of healthcare services, patients, and the public. The need to develop an understanding of competencies expected for entry into nurse anesthesia practice was integral to the SRTF's work. Following extensive multivariate efforts by the SRTF, the COA approved the following understanding of the concept of nurse anesthesia entry-into-practice competencies at the doctoral level:

> Entry-into-practice competencies for the nurse anesthesia professional prepared at the doctoral level are those required at the time of graduation to provide safe, competent,

and ethical anesthesia and anesthesia-related care to patients for diagnostic, therapeutic, and surgical procedures.

Entry-into-practice competencies should be viewed as the structure upon which the nurse anesthetist continues to acquire knowledge, skills, and abilities along the practice continuum that starts at graduation (proficient) and continues throughout their entire professional career (expert).

The SRTF presented its first draft of the Standards for Accreditation of Nurse Anesthesia Programs: Practice Doctorate to the COA in January 2012. By 2013, input was solicited from the AANA Education Committee in the development of the standards with the first draft of revised standards sent to the committee members in preparation for their conducting selected hearings. Further, the AANA Education Committee has provided input throughout the developmental process according to written procedure. This procedure has practical considerations since the Council is the entity with knowledge of laws, regulations, and other requirements and constraints imposed by external authorities governing accrediting agencies in the US. Several drafts of the standards were developed based on comments received by the COA, SRTF, and AANA from all stakeholders from 2012 to2014. Following careful consideration of all inputs, the COA approved the final draft at its January 2014 meeting. The trial standards were implemented after adoption in January 2014 and became required standards in January 2015.