

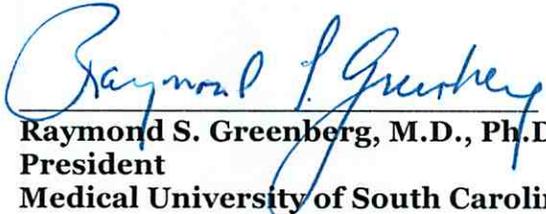
**Medical University of South Carolina  
College of Health Professions  
Department of Health Professions**

**Proposed New Program:**

**Doctor of Nurse Anesthesia Practice (DNAP)**

**Post-Baccalaureate, Entry to Practice**

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**Date**

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## Program Planning Summary: Doctor of Nurse Anesthesia Practice (DNAP)

Program title:	Doctor of Nurse Anesthesia Practice
Concentrations, options, tracks:	Post-Baccalaureate
Designation, type, level of degree:	Entry-level clinical doctoral degree
Proposed date of implementation:	Summer 2018
Qualifies for Palmetto Fellows or Life Scholarship awards:	No
Delivery mode:	Blended instruction, traditional and distance

### JUSTIFICATION OF NEED FOR THE PROPOSED PROGRAM

The accrediting organization for nurse anesthesia programs, the Council on Accreditation (COA), has mandated that “all students accepted into an accredited program on January 1<sup>st</sup>, 2022, thereafter will be required to graduate with doctoral degrees.”<sup>1</sup> Therefore, all nurse anesthesia programs must have already developed curricula and achieved accreditation of their doctoral programs prior to this date. As of November 2012, there are sixteen nurse anesthesia programs that have been accredited for the entry into practice at the doctoral level. In order to stay competitive with other nurse anesthesia programs, the MUSC Anesthesia for Nurses (AFN) Program plans to move forward with implementation prior to the final transition date.

The primary reason for this transition is to improve the quality of care delivered by nurse anesthetists in a variety of current and emerging healthcare delivery systems and to develop and strengthen the leadership skills necessary for innovative clinical practice. In 2011, the Institute of Medicine (IOM) released its report on the Future of Nursing. The IOM recognized the need to educate nurses and advanced practice nurses at higher levels to meet today’s healthcare challenges. According to the IOM, as the clinical needs of our patient population and the clinical environment itself become more complex, Certified Registered Nurse Anesthetists (CRNA) will need to attain higher-level competencies to provide a foundation for care across all practice settings and for all populations. These competencies will include increased development of clinical care as well as in evidence-based practice, informatics, health policy and leadership.<sup>2</sup> Furthermore, the IOM recommends “doubling the number of nurses with a doctorate by 2020.”<sup>2</sup> CRNAs will be able to meet the ongoing and future challenges in healthcare in South Carolina by obtaining clinical doctorate degrees that focus on managing patients based on clinical evidence; by becoming partners in improving healthcare through leadership and financial management; and by improving the flow of patient information through education in healthcare informatics.

The current program is scheduled for reaccreditation of its master’s degree program in 2019. The post-baccalaureate DNAP will be implemented prior to the 2019 reaccreditation date. However, the master’s degree program will continue to admit students until the program transitions to the doctoral degree to ensure that no gap in admissions will occur.

If the MUSC AFN program does not transition to an entry-level doctoral degree, prospective nurse anesthesia students may apply to out-of-state doctoral programs and many may not return to South Carolina upon graduation. If so, the impact on the CRNA workforce in South Carolina would be considerable, not only in metropolitan settings but particularly in those rural hospitals where CRNAs are often the primary anesthesia providers. At the MUSC hospital, nurse anesthetists in collaboration with anesthesiologists provide approximately 60% of the anesthetics delivered. Also, 60% of the CRNAs at MUSC are graduates of the MUSC AFN Program. Therefore, should the program fail to transition to a doctoral program and lose its accreditation as a result, the loss of the MUSC AFN program has the potential to leave SC with a

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<sup>1</sup> Council on Accreditation of Nurse Anesthesia Programs. (2012) Policies and Procedures Manual.

<sup>2</sup> Institute of Medicine. (2011) Report on the Future of Nursing: Leading Change, Advancing Health. Washington DC: The National Academies Press.

critical shortage of anesthesia providers that could then lead to the delay or cancellation of scheduled surgical procedures.

**ANTICIPATED PROGRAM DEMAND AND PRODUCTIVITY**

The existing entry-level nurse anesthesia program has a strong application pool of 120-140 applicants per year with an average class size of 28 students. The anticipated enrollment will continue to average 28 students per year. As required by the COA, this post-baccalaureate DNAP program will follow the minimum program length of 36 months. In the fourth year of the program, one class will have graduated and three additional classes will be moving through the curriculum.

**EMPLOYMENT OPPORTUNITIES FOR GRADUATES**

Over the last five years, 100% of graduates from the Anesthesia for Nurses Program have found nurse anesthesia positions within three months of graduation. The most recent data on CRNA vacancies classified South Carolina as one of the states with the highest vacancies per 1,000 surgeries (0.322).<sup>3</sup> The large majority of students has been offered and accepted positions prior to graduation. Although statistics are not available on the need for doctoral prepared clinical CRNAs, vacancies continue to exist for CRNAs.

**CURRICULUM**

The post-baccalaureate degree DNAP curriculum will consist of 113 credit hours. Most of the courses in the Master of Science program will be transitioned to doctoral level courses through increased content and academic rigor. The additional content includes Anesthesia Practicum (clinical education courses) and DNAP Seminar courses, as well as new courses in acquisition of knowledge of healthcare policy, advanced clinical topics, informatics, and management.

Year	Summer	Fall	Spring
One	Managing Health Care Information Systems (3cr) Chemistry and Physics of Anesthesia (2cr) Health and Human Assessment (2cr) Research Methods for Nurse Anesthesia (3cr) Professional Issues in Nurse Anesthesia (1cr) <i>Total Credits 11</i>	Foundations in Leadership (3cr) Introduction to Clinical Pharmacology (3cr) Human Anatomy for Nurse Anesthetists (5cr) Principles of Evidence-based Practice (3cr) DNAP Seminar (1cr) <i>Total Credits 15</i>	Foundations in Health Policy (3cr) Strategic Management of Change (3cr) Basic Principles of Anesthesia Practice (3cr) Simulation Lab (2cr) Adv. Physiology/Pathophysiology (5cr) <i>Total Credits 16</i>
Two	Management Principles for Nurse Anesthesia (2cr) Simulation Lab (3cr) Advanced Pharmacology: Anesthetic Drugs (4cr) Advanced Principles of Anesthesia Practice (3cr) <i>Total Credits 12</i>	Introduction to Clinical Anesthesia (3cr) Anesthesia Practicum (5cr) Principles of Pain Management (2cr) Clinical Simulation for Crisis Management (1cr) DNAP Seminar (2cr) <i>Total Credits 13</i>	Anesthesia Practicum (11cr) Introduction to Teaching and Learning (2 cr) <i>Total Credits 13</i>
Three	Anesthesia Practicum (10cr)	Anesthesia Practicum (10cr) DNAP Seminar (2cr)	Anesthesia Practicum (10cr) DNAP Seminar (1cr)

<sup>3</sup> Merwin, E., Stern, S., Jordan, LM., & Bucci, M. (2009). New Estimates for CRNA Vacancies. *AANA Journal*, 77(2), 121-129.

	DNAP Seminar (2cr) <i>Total Credits 12</i>	<i>Total Credits 12</i>	<i>Total Credits 11</i>
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**ASSESSMENT OF DUPLICATION TO EXISTING PROGRAMS IN THE STATE**

The MUSC Nurse Anesthesia program is one of only two programs in the state of SC. The other program is at the University of South Carolina (USC). Although one of the USC nurse anesthesia faculty is pursuing doctoral education, the USC Nurse Anesthesia Program currently does not have any doctoral prepared nurse anesthetists on faculty. Therefore, it does not meet the COA requirements to transition to the doctoral level. In personal conversation, the USC program director revealed that the USC nurse anesthesia program is not currently seeking approval for a doctoral degree.

**RELATIONSHIP OF PROPOSED PROGRAM TO EXISTING PROGRAMS AT MUSC**

Housed in the College of Health Professions (CHP), the MUSC Nurse Anesthesia program enjoys opportunities for interprofessional collaboration with others healthcare practitioners, health sciences researchers, and healthcare administrators. The MUSC Anesthesia for Nurses program has developed a strong reputation for producing excellent clinicians and leaders in its current location in CHP. Also, recognized leaders in healthcare have promoted the concept of interprofessional collaboration and coordination as playing a critical role in improving the US healthcare system. <sup>2</sup>

Although the MUSC College of Nursing (CON) offers an advanced degree, the Doctor of Nursing Practice (DNP) degree in adult, pediatric, or family nurse practitioner, the nurse anesthesia program does not fit into any of these categories. The basic course work required to become a nurse anesthetist is very prescriptive, notable for the intensity of education required for pharmacology, anatomy and physiology, technology, and basic and advanced principles of anesthesia care. In order to meet the COA requirements and to maintain the current AFN clinical content, the CON DNP curriculum (75 semester hours) would have to be lengthened by a semester; accommodate an additional 500 practicum hours; and include content on the basic sciences noted above. Therefore, merely transitioning CHP master’s entry-level nurse anesthesia students into the current DNP program in the College of Nursing at MUSC is not a feasible option.

**RELATIONSHIP OF PROPOSED PROGRAM TO OTHERS VIA INTER-INSTITUTIONAL COOPERATION**

Currently none

**ESTIMATED COST OF THE PROGRAM**

It is anticipated that this proposal will result in an additional \$50,000 of expenses for the additional course instruction and staff support. Because this program will replace the current master’s degree option, the estimated cost of the program is reflective of only the additional expense of new faculty. Tuition gained from the increased length of the program (two semesters) will offset the additional faculty cost. The faculty in the Doctor in Health Administration Program will teach the leadership and management courses. Both the post-master’s and the post-baccalaureate DNAP students will share these courses. Additional faculty will not be included in the year-one budget but will be added over the first two years of the program. No additional revenue will be requested from the State in relation to this proposal.

<i>New Course Personnel</i>	\$34,700
4 new courses @ 8400/course plus two additional adjunct faculty for 4 courses @ 5500/course	
<i>Student recruitment</i>	\$7,500
<i>Supplies and materials</i>	\$5,000