

1. New Program Proposal Form



Missouri Department of Higher Education

Building Missouri's future...by degrees

NEW PROGRAM PROPOSAL FORM

Sponsoring Institution(s): Missouri State University

Program Title: Doctor of Nurse Anesthesia Practice

Degree/Certificate: Doctor of Nurse Anesthesia Practice (DNAP)

Options: Entry-Level (BS – DNAP)
Completion (MS – DNAP)

Delivery Site(s): Missouri State University, Springfield, MO

CIP Classification: Nurse Anesthetist 51.3804

Implementation Date: Upon approval; 2015

Cooperative Partners: None

AUTHORIZATION:

Dr. Frank Einhellig, Provost Frank Einhellig 1/29/14
Name/Title of Institutional Officer Signature Date

Dr. Monika Feeney, Program Director 417-836-5039
Person to Contact for More Information Telephone

Executive Summary

The College of Health and Human Services at Missouri State University is seeking approval to offer a Doctor of Nurse Anesthesia Practice (DNAP) with two options, the Entry-Level Bachelor of Science to Doctor of Nurse Anesthesia Practice (BS – DNAP), and the Completion Master of Science to Doctor of Nurse Anesthesia Practice (MS – DNAP). The Biomedical Sciences Department currently offers an Entry-Level Master of Science in Nurse Anesthesia (MSNA) specialization degree, which has been available since 1996. A total of 240 graduates of the Missouri State University program are practicing all over the United States as Certified Registered Nurse Anesthetists (CRNAs) with 80% providing anesthesia services in Missouri; many are providing services to rural or underserved populations. The MSNA program at Missouri State University is accredited by the Council on Accreditation (COA) for Nurse Anesthesia programs through October 1, 2016. The proposed DNAP degree will replace the existing degree.

This proposed transition to the DNAP has been driven by accreditation mandates requiring existing master's level programs to move to the doctorate. In June 2007, after two years of study by a Task Force on Doctoral Preparation of Nurse Anesthetists, the American Association of Nurse Anesthetists (AANA) Board of Directors unanimously adopted the position of supporting doctoral education for entry into nurse anesthesia practice by 2025.¹ This followed the 2006 decision of the American Association of Colleges of Nursing (AACN) to approve the Doctor of Nursing Practice (DNP) degree as the required level of preparation for advanced practice nursing by the year of 2015.² The decision to seek approval for the specialized DNAP degree was based upon the philosophy and history of the Missouri State University School of Anesthesia. Housed in the Biomedical Sciences Department rather than the Department of Nursing, the program is affiliated with the AANA and accredited by COA. Strengths of the current program include the rigorous science and anesthesia preparation and completion of extensive clinical experiences in a variety of settings.

The curriculum standards for the proposed DNAP distinguish the competencies for nurse anesthesia practice and identify the knowledge and skills required to prepare for a complex and changing health care environment. For both options the DNAP curriculum has incorporated additional coursework that emphasizes evidence-based practice, leadership instruction, professional practice material, and ethics and safety in practice. All students will complete a research requirement as part of a capstone project. The capstone project incorporates outcome criteria that are evidence based and encourages a commitment to continuing education and lifelong learning in anesthesia. The Missouri State University School of Anesthesia will seek accreditation of the DNAP from the COA.

2. Rationale for the program

¹ American Association of Nurse Anesthetists (AANA), "AANA Position on Doctoral Preparation of Nurse Anesthetists Adopted: June 2, 2007," http://www.aana.com/ccandeducation/educationalresources/Documents/AANA_Position_DTP_June_2007.pdf

² American Association of Colleges of Nursing (AACN), "Designing DNP Programs to Meet Required Competencies – Context for the Conversation," <http://www.aacn.nche.edu/dnp/JK-2013-DNP.pdf>

Missouri State University's College of Health and Human Services (CHHS) has a strong history in educating and producing quality undergraduate and graduate health care providers in a variety of disciplines. Utilizing its strengths and experiences Missouri State University is seeking approval to offer a Doctor of Nurse Anesthesia Practice (DNAP) with two options, the Entry-Level Bachelor of Science to Doctor of Nurse Anesthesia Practice (BS – DNAP), which will replace the current entry-level master's level program, and the Completion Master of Science to Doctor of Nurse Anesthesia Practice (MS – DNAP), which only serves students who are already credentialed nurse anesthetists and hold a master's level degree. Factors driving the proposal for the DNAP include an accreditation mandate requiring existing master's level programs to transition to the doctorate, student demand, and the increasing need for nurse anesthetists to help meet the healthcare needs of rural communities.

In June 2007, after two years of study by a Task Force on Doctoral Preparation of Nurse Anesthetists, the American Association of Nurse Anesthetists (AANA) Board of Directors unanimously adopted the position of supporting doctoral education for entry into nurse anesthesia practice by 2025.³ This followed the 2006 decision of the American Association of Colleges of Nursing (AACN) to approve the Doctor of Nursing Practice (DNP) degree as the required level of preparation for advanced practice nursing by the year of 2015.⁴ Findings indicate that nurse anesthesia programs affiliated with departments, schools, or colleges of nursing that are members of AACN are more likely to transition to a DNP while those without such an affiliation are likely to pursue development of the DNAP.⁵ Nationally, approximately 44% of nurse anesthesia programs are housed outside of departments, schools, or colleges of nursing.⁶ The Missouri State University School of Anesthesia is housed in the Biomedical Sciences Department, making the DNAP degree the appropriate degree to be offered by the program. Missouri State University will be transitioning the current Entry-Level MSNA program to an Entry-Level DNAP (BS – DNAP) program; a Post-Masters Completion option (MS – DNAP) will also be offered.

The DNAP clinical doctorate will provide training for students who will ultimately impact the health and well-being of the citizens of Missouri, the nation, and the global community. Through the engaged inquiry component of the scholarly work required in the educational requirements of the clinical doctorate, students of the program will ultimately change the practice of Certified Registered Nurse Anesthetists (CRNAs) by presenting innovative ideas, critically evaluating current practices and pushing for implementation of policies and procedures that will positively impact the safety of all individuals in the care of CRNAs.

³ American Association of Nurse Anesthetists (AANA), "AANA Position on Doctoral Preparation of Nurse Anesthetists Adopted: June 2, 2007," http://www.nana.com/ceandeducation/educationresources/Documents/AANA_Position_DTF_June_2007.pdf.

⁴ American Association of Colleges of Nursing (AACN), "Designing DNP Programs to Meet Required Competencies – Context for the Conversation," <http://www.aacn.nche.edu/dnp/JK-2013-DNP.pdf>.

⁵ American Association of Nurse Anesthetists (AANA), "Doctor of Nurse Anesthesia Practice (DNAP) Q&A," http://www.dnap.com/doctor_of_nurse_anesthesia_DNA.html.

⁶ Council on Accreditation of Nurse Anesthesia Educational Programs (COA), "List of Recognized Educational Programs." Last updated December 12, 2013. <http://home.coa.us.com/accredited-programs/Documents/LORP%20121213.pdf>.

3. Student enrollment projections (Form SE), including a rationale for how projections were calculated

FORM SE

Student Enrollment Projections

Year	1	2	3	4	5
Full-Time BS to DNAP option	16	34	54	58	60
Part-Time MS to DNAP option	10	20	30	30	30
Total	26	64	84	88	90

Enrollment projections were based on the current MSNA student numbers, the current number of applications received for each cohort, and the number of inquiries received regarding the availability of a clinical doctorate. Currently the MSNA program recruits, interviews and selects two cohorts of seven to eight students (one fall cohort and one spring cohort) for a total of fourteen to sixteen students per academic year. Typically, the Missouri State University School of Anesthesia receives approximately four times the number of applications as there are seats available in the cohort. The maximum number of students admitted to the Entry-Level option each year will be 20. The program will monitor market demand and job placement. Missouri State University School of Anesthesia graduates currently have a 100% job placement post-graduation.

Upon implementation of the DNAP, admission to the program will be consolidated to once per year. Part-time admission is only available to students in the Completion option (MS – DNAP) and will be limited to 10 per year (the part-time option will maintain a 20-student capacity at any one time). The expectation is for current master’s prepared CRNAs to complete their clinical doctorate within the next 10 years. Numbers are projected to decrease after that time period. Enrollment projections maintain the appropriate faculty-student ratios outlined by the COA accreditation standards. Only students enrolled in the Entry-Level option (BS – DNAP) will be participating in clinical practicum rotations. Those students enrolled in the Completion option (MS – DNAP) already possess the CRNA credential and will not be required to complete clinical rotations.

4. Evidence of Market demand / Societal need supported by research

4.A. Market Demand

National. According to the Bureau of Labor Statistics, employment of nurse anesthetists, nurse midwives, and nurse practitioners is expected to increase by 31% from 2012 to 2022⁷. Shortages of anesthesia professionals have been found nationwide, however the degree of need varies greatly by region. Approximately 60% of states nationwide

⁷ Bureau of Labor Statistics, U.S. Department of Labor. "Nurse Anesthetists, Nurse Midwives, and Nurse Practitioners." *Occupational Outlook Handbook, 2014 - 2015 Edition*. <http://www.bls.gov/ooh/healthcare/nurse-anesthetists-nurse-midwives-and-nurse-practitioners.htm>

indicate a CRNA shortage⁸. One of the most frequently used CRNA job sites, www.gaswork.com, currently shows 14,275 job listings seeking CRNAs⁹.

Regional. The state of Missouri along with Arkansas, Iowa, Kansas, Minnesota, Nebraska, North Dakota, Oklahoma, and South Dakota is located in Region 4 of the AANA. This nine state region encompasses many rural locations with great unmet need. Currently 1,925 positions are listed for the nine Region 4 states on the same website referenced above¹⁰.

State. Of the 114 counties in Missouri, surgical services are available in 70 of those counties. CRNAs provide the only anesthesia services in 39 of those, while both CRNAs and anesthesiologists provide services in 31 counties¹¹. Missouri has needs that are filled by the Missouri State University School of Anesthesia program historically, giving our state excellent anesthesia care. The state association for the nurse anesthesia profession posts positions as well. At this time, more than 25 positions are listed¹². Currently, 80% of the Missouri State University School of Anesthesia alumni practice in Missouri or Southwest Missouri.

Local. According to the Springfield Area Chamber of Commerce, Springfield's healthcare industry employs over 30,000 people (17% of the total workforce) with an economic impact of approximately \$4.5 billion annually.¹³ Six area hospitals with 2,276 beds, over 800 physicians and an array of clinics provide primary and specialty care for the community. In the ten-county region there are six additional hospitals serving rural communities. Mercy is currently constructing a new orthopedic hospital in Springfield, which will contribute to increased demands for CRNA professionals.

4.B. Societal Need:

The complexities of healthcare and the healthcare system, and the concerns about healthcare quality and safety have led many national organizations and task forces to review the education received by health professionals in the United States and make recommendations for changes to improve patient safety, inter-professional communication, and collaboration. The transition to the DNAP is consistent with that of other disciplines that have promoted the doctorate as the appropriate clinical degree for practice, such as pharmacy, audiology, and physical therapy, to meet the increasing complexity of practice.

Access to quality and affordable care is integral to patient protection, safety, and satisfaction. Availability of care in rural areas can often be challenging, particularly when the numbers of qualified available healthcare providers are limited. According to the AANA, "Nurse anesthesia services are crucial to rural healthcare, with CRNAs being

⁸ L. Daugherty, R. Fonseca, K. Kumar, and P. Michaud, "An Analysis of the Labor Markets for Anesthesiology," *RAND Corporation*. (2010). http://www.rand.org/pubs/technical_reports/TR688/.

⁹ Gaswork.com, "Search - CRNA Jobs." <http://gaswork.com/search/CRNA/Job/All>.

¹⁰ *Ibid*.

¹¹ Missouri Association of Nurse Anesthetists (MoANA), "Missouri Anesthesia Providers by County." <http://moana.org/2011/10/11/missouri-anesthesia-providers-by-county/>.

¹² Missouri Association of Nurse Anesthetists (MoANA), "CRNA Jobs." <http://moana.org/jobs/>.

¹³ Springfield Chamber of Commerce, "Data Profile Overview." <http://www.business4springfield.com/data-profile/overview/>.

the sole anesthesia providers in the vast majority of rural hospitals, affording these facilities surgical, obstetric, trauma stabilization, interventional diagnostic and pain management capabilities. Without CRNA services, many U.S. rural and Critical Access hospitals (CAH) would not be able to offer care at all."¹⁴ Research published in *Health Research and Education Trust* indicates that complication rates in anesthesiologist-only hospitals (.27) did not differ significantly from complication rates in CRNA-only hospitals (.23)¹⁵.

4.C. Methodology used to determine "A" and "B" above.

Data from AANA, national publications, and alumni survey/employer data was used to determine the market need for DNAP graduates and programs.

5. Address program duplication and opportunities for collaboration (*should include Form CL for collaboration*)

According to the COA website, four anesthesia schools are located in the State of Missouri¹⁶. They are as follows:

- Goldfarb School of Nursing at Barnes-Jewish College
 - Master of Science in Nursing with Concentration in Nurse Anesthesia (Entry Level)
 - St. Louis, MO
- Missouri State University School of Anesthesia
 - Master of Science in Nurse Anesthesia (Entry Level), Master of Science in Nurse Anesthesia (Completion)
 - Springfield, MO
- Truman Medical Center School of Anesthesia
 - Doctor of Nursing Practice, MA in Biology (Entry Level)
 - Kansas City, MO
- Webster University Nurse Anesthesia Program
 - Master of Science in Nurse Anesthesia (Entry Level)
 - St. Louis, MO

None of the programs in Missouri is currently offering a DNAP. One program, the Truman Medical Center School of Anesthesia, offers a collaborative Doctor of Nursing Practice (DNP) through the University of Missouri-Kansas City School of Nursing and Health Studies¹⁷.

Because of the mandate requiring existing master's level CRNA programs to move to the doctorate, there eventually will be duplication if all programs transition to the doctoral level. However, duplication is required to meet the workforce needs for anesthesia service providers. The move to a clinical doctorate as the entry-level degree increases the level of education required but the number of programs is not expected to increase.

¹⁴ American Association of Nurse Anesthetists (AANA), "Federal Government Affairs." www.aana.com/advocacy/federalgovernmentaffairs.

¹⁵ Jack Needleman and Ann Minnick, "Anesthesia Provider Model, Hospital Resources, and Maternal Outcomes," *Health Services Research* 44, no. 2 (2009): 464.

¹⁶ Council on Accreditation of Nurse Anesthesia Educational Programs (COA). "List of Recognized Educational Programs (LORP)." Last updated December 12, 2013. <http://home.coa.us.com/accredited-programs/Pages/default.aspx>

¹⁷ Truman Medical Centers School of Nurse Anesthesia, "About Us", <http://crna.tunchoost.com/>

The Missouri State University School of Anesthesia DNAP program does not anticipate collaborations with other universities in the offering or delivery of the MSU DNAP program.

FORM CL: N/A

1. Details on Program Structure (Form PS)

PROGRAM STRUCTURE

A. Total credits required for graduation:

Entry-Level (BS – DNAP) 118

Completion (MS – DNAP) 26

B. Residency requirements, if any:

Entry-Level (BS – DNAP) 112

Completion (MS – DNAP) 20

The Missouri State University School of Anesthesia will allow a maximum of 6 credit hours of transfer coursework to be counted toward the DNAP degree. No transfer coursework can be credited toward courses with an ANE prefix.

C. General education: Total credits: N/A

D. Major requirements: Total credits:

Entry-Level (BS – DNAP) curriculum:

ANE 702 (1 cr)	ANE 705 (1 cr)	ANE 708 (1 cr)
ANE 711 (1 cr)	ANE 714 (1 cr)	ANE 720 (3 cr)
ANE 726 (2 cr)	ANE 732 (6 cr)	ANE 735 (44 cr)
ANE 745 (4 cr)	ANE 746 (3 cr)	ANE 750 (4 cr)
ANE 803 (3 cr)*	ANE 806 (3 cr)*	ANE 807 (3 cr)*
ANE 810 (2 cr)*	ANE 897 (3 cr)*	ANE 898 (3 cr)*
BMS 620 (3 cr)	BMS 700 (3 cr)	BMS 728 (3 cr)
BMS 742 (4 cr)	ECO/HCM 604 (3 cr)*	PBH 730 (3 cr)
PHI 613 (3 cr)*	NUR 734 (5 cr)	NUR 800 (3 cr)*

*Denotes required course in Completion (MS – DNAP) option

E. Free elective credits: 0 (Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience. 6

All students in the DNAP program will complete clinical research courses (ANE 897 and ANE 898) that progress students through the academic research process, resulting in the completion of a scholarly anesthesia-related capstone project.

G. Any unique features such as interdepartmental cooperation:

Several courses will be taught by faculty with appropriate expertise in other departments such as philosophy, economics, public health, and nursing.

ANE 702 Clinical Conference I. Review of significant cases involving complex anesthesia considerations. 1(1-0), F,S.

ANE 705 Clinical Conference II. Prerequisite: ANE 702. A review of significant cases involving complex anesthesia considerations. 1 (1-0), F,S.

ANE 708 Clinical Conference III. Prerequisite: ANE 705. Continuing review of significant cases involving complex anesthesia considerations. 1 (1-0), F,S.

ANE 711 Clinical Conference IV. Prerequisite: ANE 708. Continuing review of significant cases involving complex anesthesia considerations. 1 (1-0), F,S.

ANE 714 Orientation to Clinical Anesthesia. Prerequisite: permission from program director. Introduction to anesthesia equipment, monitoring equipment, positioning, intravenous considerations, records, departmental management, ethics, departmental organization and function, legal and professional aspects. 1 (1-0), F,S.

ANE 720 Basic Principles of Anesthesia. A presentation of the principles of laws of physics and chemistry applicable to the field of anesthesia along with an in-depth analysis of structure and function of the cardiac, respiratory, circulatory, endocrine, hepatic, renal, neurologic, autonomic, and central nervous systems. 3 (3-0), F,S.

ANE 726 Introduction to Clinical Anesthesia. Preoperative evaluation of patients, airway management, inhalation techniques, common complications of induction and emergence. Supplemental course fee.2 (2-0), F,S.

ANE 732 Advanced Anesthesia Principles I. Prerequisite: ANE 720. An in-depth review of drugs commonly used to provide the state of anesthesia, review of subjects essential to the practice of anesthesia; emphasis on pediatrics, neonatal, critical care anesthesia, trauma and burns, organ transplants and organ retrieval, obesity and GI disorders, and a study of the requirements for specialized anesthesia care; regional anesthesia, chronic pain, cardiac, and vascular anesthesia. 6 (6-0), F.

ANE 735 Clinical Practicum. Prerequisite: Admission to DNAP. Clinical experience in the anesthesiology department at multiple clinical sites. Specialty content may be included as part of the practicum experience. May be repeated up to a total of 44 hours. Graded Pass/Not Pass only. Hours are based on Clinical Practicum days in the Clinical area. Supplemental course fee. 3-10, F,S,Su.

ANE 745 Anesthesia Pharmacology I. Prerequisite: BMS 620. A study of the principles of clinical pharmacology and the pharmacokinetics and pharmacodynamics of commonly used anesthetic agents during the perioperative period. A review of the effects of drugs required by patients during the perioperative period with and without pre-existing medical conditions and their continuation in the perioperative period. Detailed study of Inhalation Agents and

stages of anesthesia, Opioids, Opioid agonists/Antagonists, Barbituates, and Non-barbituates, and drug interactions. 4 (4-0), F.

ANE 746 Anesthesia Pharmacology II. Prerequisite: ANE 745. A study of the principles of clinical pharmacology and the pharmacokinetics and pharmacodynamics of commonly used anesthetic agents during the perioperative period. A review of the effects of drugs required by patients during the perioperative period with and without pre-existing medical conditions and their continuation in the perioperative period. Detailed study of Neuromuscular Blocking Drugs, and Local Anesthetics. Course includes an introduction to autonomic pharmacology and cardiovascular pharmacology. 3 (3-0), S.

ANE 750 Advanced Anesthesia Principles II. Prerequisite: ANE 720. A review of the special anesthetic considerations for: anesthesia delivery systems, pre-operative evaluation, monitoring, professional liability, rare and coexisting diseases, hemotherapy and hemostasis, post-anesthesia recovery, minimally invasive procedures, orthopedic, geriatric, outpatient anesthesia, airway management, respiratory physiology and function, thoracic surgery, neuro surgery, patients with liver and kidney disease, acid-base disturbances, and patients undergoing urologic, ophthalmic, and otolaryngologic surgery. 4 (4-0), S.

ANE 803 Human Factors and Patient Safety for Healthcare. Prerequisites: admission to the DNAP program. Examines healthcare from a safety perspective and how to facilitate change for caregivers at the "sharp end of the stick" according to the Reason theory of errors. Discussion of an environment and philosophy of safety. Explores basis of human error, patient safety and quality assurance by introducing a system approach, including crisis management, simulation and teamwork in healthcare. Course taught online only. 3 (3-0), S.

ANE 806 Professional Practice in Anesthesia. Prerequisites: admission to the DNAP program. Emphasizes learning through advanced clinical experiences in anesthesia practice. Explores concepts of nurse anesthesia practice, competence and expertise, and incorporation of clinical thinking skills and reflection as an evaluation method. The focus is on methods of determining best practice through identification of problems, review, and systematic evaluation of current research, interdisciplinary collaboration, and consideration of economic and other factors that impact patient outcomes. A professional portfolio will be expected at the conclusion of the program. Course taught online only. 3 (3-0), F.

ANE 807 Anesthesia and Healthcare Policy. Prerequisites: admission to the DNAP program. Examines government and non-government issues that influence nurse anesthesia practice. Focuses on development of skills that contribute to leadership and personal effectiveness in implementing change in nurse anesthesia and health care. Emphasizes interdisciplinary relationships between the CRNA, nurse, physician, and administration, policy makers and other key stakeholders that format healthcare policy; equips the student with up-to-date information on various global health topics and perspectives; a basic perspective of health policy issues in different geographical regions, and explains how global health policy is effected by significant world events, including coverage of new infectious diseases with human rights, stigma of diseases and disclosure. Comparison of health and health care universally. Course taught online only. 3 (3-0), Su.

ANE 810 Health and Wellness in the Healthcare Setting. Prerequisites: admission to the DNAP program. Health and Wellness in the Healthcare Setting for the Healthcare provider in modern day medical setting. Healthy coping strategies investigated. Pitfalls of stressors in healthcare with evidence-based solutions. Addiction and Recovery for Healthcare professionals reviewed with AANA wellness modules, and peer assistance as well as University assistance for students reviewed. Healthy lifestyles including dietary, mental, physical, spiritual wellness for healthcare providers discussed. 2 (2-0), S.

ANE 897 Research for Scholarly Project. Prerequisite: admission to the DNAP program. The Capstone Project is the culminating experience of the DNAP program, and presents an opportunity for students to investigate a problem relevant to the practice of anesthesia. Because nurse anesthesia practice includes administration and education roles as well as clinical actions, solutions must be based on sound evidence. ANE 897 and ANE 898 are consecutive courses to allow the student time to complete the Capstone Project during their anesthesia study periods. The initial class provides direction and approval for the class, while the latter class provides presentation and evaluation of the determined project. Course taught online only. 3 (3-0), Su.

ANE 898 Capstone Project Presentation. Prerequisite: ANE 897. The Capstone Project is the culminating experience of the DNAP program, and presents an opportunity for students to investigate a problem relevant to his or her practice of anesthesia. Because nurse anesthesia practice includes administration and education roles as well as clinical actions, solutions must be based on sound evidence. ANE 897 and ANE 898 are consecutive courses to allow the student time to complete the Capstone Project during their anesthesia study periods. The initial class provides direction and approval for the class, while the latter class provides presentation and evaluation of the determined project. Course taught online only. 3 (3-0), S.

BMS 620 Medical Cell Biology. Prerequisite: admission to the Nurse Anesthesia program. Focus on the molecular aspects of cell biology for students in the Nurse Anesthesia program. Content identical to the lecture part of BMS 622. Cannot receive credit for both BMS 620 and 622. May be taught concurrently with BMS 520. Cannot receive credit for BMS 520 and BMS 620. 3 (3-0), F,S.

BMS 700 Introduction to Graduate Studies in the Biomedical Sciences. Prerequisite: admission to the Nurse Anesthesia program. Study of the researcher role, the research process, and research ethics relating to the biomedical sciences. 3 (3-0), F,S.

BMS 728 Human Neurophysiology and Anatomy. Prerequisite: admission to the DNAP program. This is a blended course designed for a study of human neuroanatomy and neurobiology with emphasis on understandings of pain sensation and perception. Lecture is focused on fundamental structure and function of central nerve system and peripheral nerve system with respect to pain followed by understandings of its regulatory mechanisms and pathological pain. The lecture portion incorporates non-traditional online lectures and discussion in classroom. Laboratory offers hands-on learning opportunities with emphasis on

pain-related gross anatomy and pain management. Students observe, discuss, teach, and learn about the human nervous system in a cooperative learning environment. 3 (1-4), Su.

BMS 742 Human Physiology II. Prerequisite: BMS 620 or 622 and admission to the MSCMB or DNAP programs. This course is the graduate level companion class of BMS 542. You cannot receive credit for both classes. Course is the study of the human cardiovascular and respiratory physiology and related human diseases. Emphasis is on the normal and abnormal functions of the heart, lungs, and vascular systems. Consideration of disease etiology, diagnosis and clinical interpretation of the cardiopulmonary and vascular systems. Current research topics will be introduced and discussed. 4 (4-0), S.

ECO 604 Health Care Economics. Recommended Prerequisite: ECO 165. A basic study of the economics of the health care market. Microeconomic theory is applied to the analysis of health care issues. Attention will be given to empirical studies of health care economics. Identical with HCM 604. Cannot receive credit for both ECO 604 and HCM 604. May be taught concurrently with ECO 504. Cannot receive credit for both ECO 504 and ECO 604. 3 (3-0), F.

PBH 730 Biostatistics in Health Sciences. This course is an introduction to biostatistical methods in the context of public health and medical sciences. Major topics will include: research design and measurement, sampling, exploratory data analysis, probability and sampling distributions, hypothesis testing, contingency table analysis, nonparametric methods, correlation, linear regression, logistic regression and survival analysis. Emphasis will be on developing an understanding of these methods and drawing appropriate conclusions from analysis findings. Students will also be introduced to statistical programming packages. 3 (3-0), F,S.

PHI 613 Bioethics. An introduction to central ethical questions that arise in the area of bioethics, and to the resources various ethical theories offer for resolving those questions. In addition to a brief overview of contemporary moral theory, the course will discuss issues such as euthanasia, informed consent, proxy decision making, experimental research on humans and health care allocation. Specific cases will be discussed and analyzed throughout the semester. May be taught concurrently with PHI 513. Cannot receive credit for both PHI 513 and PHI 613. 3 (3-0), D.

NUR 734 Advanced Physical Assessment and Clinical Reasoning. Prerequisite: admission to the Family Nurse Practitioner specialization or permission. Advanced critical thinking, communication and diagnostic skills needed to obtain comprehensive and focused history and physical exams, analyze assessment data, generate differential diagnoses, evaluate and utilize screening and diagnostic modalities appropriately. An evidence-based practice framework will be utilized. Supplemental course fee. 5 (3-6), F.

NUR 800 DNP Leadership I: Concepts for Evidence-Based Practice. Prerequisite: admission to the DNP Program and meet program progression requirements or permission. This course explores foundational concepts and theories for the development of the DNP nurse leader and the DNP Change Project. Concepts include transforming healthcare through

evidence-based practice, quality improvement, leadership in healthcare systems, project planning, evaluation of evidence, and consideration of disparities in health and healthcare from a population focus. 3 (3-0), Su.

7.B. Business and Marketing Plan: Recruiting and Retaining Students

Marketing strategies for the proposed DNAP program include the use of the Missouri State University website, which includes links to the School of Anesthesia brochures, application, and program resources; on-and off-campus displays at Showcases and Graduate Fairs, which includes free rental of a booth at the bi-annual state meeting for the Missouri Association of

Nurse Anesthetists (MoANA) to advertise educational offerings; advertisement in the Missouri Nurses Quarterly periodical; and listing of the School of Anesthesia program on the AANA website. Informally, the program is marketed through its strong network of over 600 alumni who practice anesthesia in all capacities nationwide.

Student retention for the proposed DNAP degree program is expected to mirror that of the current MSNA program. Over the past decade, a 99% student retention rate has been maintained by the Missouri State University School of Anesthesia. The rigorous selection process and limited cohort sizes have resulted in classes of highly motivated and capable students. The average first-time pass rate on the National Certification Exam (NCE) for the previous five years is 100%, which significantly exceeds the COA minimum standards.

3. Program Characteristics and Performance Goals (Form PG)

Institution Name Missouri State University
Program Name Doctor of Nurse Anesthesia Practice
Date January 15, 2014

Student Preparation

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.

Entry-Level (BS to DNAP)

The Entry-Level (BS to DNAP) option will only consider applicants who plan to be full-time students. Admissions procedures and qualifications that exceed regular Missouri State University Graduate College requirements are listed below. Selective admission will apply based on the limited number of students the Entry-Level option can accept and the qualifications of the applicants.

Admission requirements

In order to be considered for admission into the Missouri State University School of Anesthesia you must have completed the following requirements:

- A bachelor's degree in an area of life sciences, nursing, or chemistry from an accredited institution in the U.S. or equivalent training in a foreign university
- Undergraduate work must include inorganic chemistry (4 hrs), organic chemistry (4 hrs), microbiology, human anatomy, human physiology; and genetics (strongly recommended)
- A minimum GPA of 3.00 on a 4.00 scale for the last 60 hours of undergraduate course work. Emphasis will be placed on science courses
- Submission of official Graduate Record Examination (GRE) scores taken no earlier than five years prior to application with a preferred minimum score of 153 in Verbal Reasoning, 150 in Quantitative Reasoning, and 3.5 in Analytical Writing, or successful passing of the CCRN exam.

- Current licensure as a registered nurse in the U.S.
- A minimum of one year experience in an acute care setting is required; preferences may be given to applicants with more experience. Contact the Program Director regarding questions about appropriate nursing experience
- Current BLS, ACLS, PALS certification are required
- A personal interview with a screening committee
- In addition, to the admission requirements you must also have completed the application and admission requirements for both the Missouri State University Graduate College and the Missouri State University School of Anesthesia. Students accepted into the program will also have to pay a confirmation deposit as a placeholder in the program.

After Selection:

- Upon acceptance to the program, the student will pay \$200.00 to the AANA for an associate membership (American Associate of Nurse Anesthetists)
- Students admitted into the program will be required to undergo a criminal background check before matriculation

Admission to the Missouri State University Graduate College

- Prior to admission to the Missouri State University School of Anesthesia Program an application and a \$35 application fee must be completed and sent to the Graduate College at Missouri State University. GRE scores should be submitted at this time.
- Admission to the School of Anesthesia at Missouri State University, completion of the online application and payment of the \$25 application fee.

Application checklist:

- Completed application to Missouri State School of Anesthesia **AND** completed application to MSU Graduate College
- Essay on why you are qualified for admission, nursing history, goals. No more than 250 words double spaced.
- Copies of Certifications (**Nursing license, BLS, ACLS and PALS**) GRE scores
- Current Resume/Curriculum Vitae
- Non-refundable application fee of \$25.00 (This must be a check made payable to Missouri State University School of Anesthesia.)
- Please note: MSU Graduate School and the School of Anesthesia have two separate application fees and two separate addresses
- References: 3 letters of recommendation from non-relative medical professionals, including your current supervisor. These should be on official letterhead and signed by the professional.
- Official transcripts from each institution must be sent to Missouri State School of Anesthesia and Missouri State University Graduate College. **Transcripts must include the five prerequisite courses: Microbiology, Anatomy, Physiology, Inorganic AND Organic Chemistry. These five classes ARE mandatory.**

- Signed Agreement/Authorization form
- Confirmation Deposit
 - Students accepted into the program will be required to pay a \$500 Confirmation Deposit to reserve their seat in the class. This is applied to tuition upon matriculation.

Completion (MS to DNAP)

Admission requirements

In order to be considered for admission into the Missouri State University School of Anesthesia you must have completed the following requirements:

- Completed application to Missouri State University School of Anesthesia **AND** completed application to Missouri State University Graduate College
- Essay on why you are qualified for admission, goals, preparation and interest in anesthesia and the DNAP. No more than 250 words double spaced.
- Copies of Current Certifications (**Nursing license, Advance Practice License, BLS, ACLS and PALS**)
- Hold a current unencumbered CRNA license from a state within the United States.
- Current Resume/Curriculum Vitae that identifies all previous anesthesia, leadership, community involvement as well as other activities or experiences.
- Master's Degree in one of the following: Science, Nursing, or a Health Related Field.
- Have a cumulative GPA of Master's coursework of 3.25 (on a 4.00 scale) or above. Students who have less than a 3.25 cumulative GPA must submit GRE score not more than 2 years old to be considered on an individual basis, or passing of the CCRN exam.
- Submit evidence of current health insurance
- Submit evidence of current immunizations or immune status (MMR, Tetanus, Varicella, Hepatitis B series) and PPD within one year (or chest X-ray or documentation of appropriate follow up to PPD positive individuals)
- Be prepared to meet the requirements of the online portion of the program both mentally and technologically (Computer and internet access is required)
- Non-refundable application fee of \$25.00 (This must be a check made payable to Missouri State University School of Anesthesia.)
- **Please note: The Missouri State University Graduate College and the School of Anesthesia have two separate application fees and two separate addresses**
- References: 3 letters of recommendation from non-relative medical professionals with a master's degree or higher that address the applicant's potential as a clinician, leader, and scholar. These should be professional letters on official letterhead and signed by the professional.
- Official transcripts from each institution must be sent to Missouri State University School of Anesthesia **and** Missouri State University Graduate College.
- Complete a minimum of one year of clinical experience, more is preferred.

- An interview by invitation.
- Signed Agreement/Authorization form.
- Confirmation Deposit
 - Students accepted into the program will be required to pay a \$500 Confirmation Deposit to reserve their seat in the class. This is applied to tuition upon matriculation.
- Characteristics of a specific population to be served, if applicable.

The Entry-Level Program (BS – DNAP) is designed to provide students with the appropriate knowledge, skills, and abilities needed to take the National Certification Exam (NCE) to become CRNAs. The Post-Professional Program (MS – DNAP) is intended to provide those who are master’s level CRNAs the opportunity to further develop professional leadership, safety and lifelong learning skills.

Faculty Characteristics

- Special Requirements

According to COA accreditation standards:

The Program Administrator/Program Director must be “a CRNA with an appropriate graduate degree who by position, responsibility, and authority is actively involved in the organization and administration of the entire program of nurse anesthesia. The graduate degree must be from an institution of higher education accredited by a nationally recognized accrediting agency.”¹⁸

The Assistant Program Administrator/Assistant Program Director must be “a CRNA with an appropriate graduate degree who by position, responsibility, and authority actively assists the program administrator/program director in the organization and administration of the entire program of nurse anesthesia. The graduate degree must be from an institution of higher education accredited by a nationally recognized accrediting agency. The assistant program administrator must be qualified to assume the responsibilities of the program administrator if required.”¹⁹

Clinical faculty – “The CRNA or anesthesiologist who is responsible for teaching nurse anesthesia students during the perioperative period and for evaluating their clinical progress. When students are administering anesthesia, such instructors must be CRNAs or anesthesiologists with staff privileges in anesthesia.”²⁰

The DNAP program will require that all full-time faculty members providing didactic instruction be doctorally prepared. Current nurse anesthesia faculty members either

¹⁸Council on Accreditation of Nurse Anesthesia Educational Programs (COA), “Standards for Accreditation of Nurse Anesthesia Educational Programs.” Last print date January 25, 2013.
http://home.coa.us.com/accreditation/Documents/Standards%20for%20Accreditation%20of%20Nurse%20Anesthesia%20Education%20Programs_January%202013.pdf.

¹⁹ Ibid.

²⁰ Ibid.

hold or will complete a doctoral degree by the start of the DNAP program. Faculty members providing instruction in the basic sciences currently hold doctoral degrees in their respective fields. Faculty members providing instruction for courses with ANE prefixes must be CRNAs.

- Estimated percentage of credit hours that will be assigned to full-time faculty. Please use the term "full-time faculty" (and not FTE) in your descriptions here.

It is expected that all of the didactic instruction will be provided by full-time faculty. This equates to approximately 95% of the credit hours in the Entry-Level (BS – DNAP) option and 70% of the credit hours in the Completion (MS – DNAP) option.

- Expectations for professional activities, special student contact, teaching/learning innovation.

Faculty members are expected to maintain involvement with the nurse anesthesia profession at the local, district, and national levels. This includes attending professional development activities; attending state, district, and national conferences; and conducting and publishing research. Faculty members are encouraged to maintain their clinical skills on a prn basis, or in the summer for 9 month faculty. Faculty members will have contact with students in the classroom, at clinical sites, through independent and group research projects, and through advisement/mentorship. Faculty members will be involved in student recruitment efforts in conjunction with other faculty and staff on campus (the Office of Admissions, Graduate College, College of Health and Human Services, etc.), which may include the design of promotional materials, updating website information, visiting career/college fairs, hosting open houses, and participating in Missouri State University-sponsored fairs/showcases.

Duties associated with evaluation and mentorship of students will be divided equally among faculty members. As part of the capstone experience, each student will be required to assemble a committee to oversee his/her scholarly work. School of Nurse Anesthesia faculty members will be required to serve as capstone committee chairs. Other committee members may include Biomedical Science faculty, CRNAs, or anesthesiologists who have particular interest in the topic being investigated, chosen by the student. The School of Anesthesia Program Director will approve all projects prior to their implementation. The appointed research faculty will oversee all projects to maintain timeline, IRB approvals, and ultimate completion and presentation of the project.

Teaching/learning innovations will include traditional didactic methods, clinical practicum education, clinical practice, case studies, hands-on learning, research project, individual- and group-based projects, as well as many other techniques the faculty and clinical supervisors elect to utilize. Missouri State University's Faculty Center for Teaching and Learning (FCTL) provides course development resources such as the Digital Professor Academy for those who wish to learn to use and

incorporate the latest technology in creative teaching methods. Faculty will be encouraged to take advantage of these opportunities in order to create more innovative courses and delivery methods. The curriculum will provide interprofessional education opportunities to develop the knowledge and skills needed for successful collaborative practice.

Enrollment Projections

- Student FTE majoring in program by the end of five years:

The program will have capacity to admit 20 full-time students and 10 part-time students per year. The Entry-Level option (BS – DNAP) is structured as a three-year cohort model. The Completion option (MS – DNAP) permits students to select a two-year or a three-year completion option. The program will cap part-time enrollment at 30 at any one time. Therefore, at the end of five years it is anticipated that student FTE in the program would be 90 (60 enrolled in the full-time option and 30 enrolled in the part-time option; 30 part-time students equates to 15 FTE).

- Percent of full-time and part-time enrollment by the end of five years.

It is anticipated that approximately 67% of the students will be enrolled in the full-time, Entry-Level (BS – DNAP) option at the end of five years; 33% of students will be enrolled in the part-time, Completion (MS – DNAP) option.

Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.

3 year: 26 (16 full-time; 10 part-time)

5 years: 30 (20 full-time; 10 part-time)

- Special skills specific to the program.

Graduates of the Missouri State University DNAP Program will meet the following competencies established in the *2004 Standards for Accreditation of Nurse Anesthesia Educational Programs*.²¹

Biological Systems, Homeostasis and Pathogenesis

- a. Analyzes best practice models for nurse anesthesia patient care management through integration of knowledge acquired from arts and sciences within the context of the scope and standards of nurse anesthesia practice.

²¹ibid.

- b. Uses a systematic outcomes analysis approach in the translation of research evidence and data in the arts and sciences to demonstrate they will have the expected effects on nurse anesthesia practice.
2. Professional Role
 - a. Demonstrates ability to undertake complex leadership roles in nurse anesthesia.
 - b. Demonstrates ability to provide leadership that facilitates intraprofessional and interprofessional collaboration.
 - c. Integrates critical and reflective thinking in leadership style.
 - d. Demonstrates ability to utilize a variety of leadership principles in the management of situations.
 3. Healthcare Improvement
 - a. Uses evidence based practice to inform clinical decision making in nurse anesthesia.
 - b. Evaluates how public processes impact the financing and delivery of healthcare.
 - c. Develops and assesses strategies to improve patient outcomes and quality of care.
 4. Practice Inquiry
 - a. Demonstrates the ability to assess and evaluate health outcomes in a variety of populations, clinical settings, and systems.
 - b. Demonstrates ability to disseminate research evidence.
 - c. Completes a scholarly work that demonstrates knowledge within the area of academic focus.
 5. Technology and Informatics
 - a. Uses information systems/technology to support and improve patient care and healthcare systems.
 - b. Critically evaluates clinical and research databases used as clinical decision support resources.
 6. Public and Social Policy
 - a. Advocates for health policy change to improve patient care and advance the specialty of nurse anesthesia.
 7. Health Systems Management
 - a. Analyzes the structure, function and outcomes of healthcare delivery systems and organizations.
 - b. Analyzes business practices typically encountered in nurse anesthesia delivery settings.
 - c. Analyzes risk management plans based on information systems to promote outcome improvement for the patient, organization and community.
-

8. Ethics

- a. Applies ethically sound decision-making.
- b. Informs the public of the role and practice of the doctoral-prepared CRNA and represents themselves in accordance with the *Code of Ethics for CRNAs*.
- c. Fulfills the obligation as a doctoral-educated professional to uphold the *Code of Ethics for CRNAs*.

The learning outcomes for the DNAP program are as follows:

Graduates of the program will be able to:

- Demonstrate and utilize best practice models for nurse anesthesia by using evidence based practice.
- Apply scientific pharmacological and physiological principles to meet the challenges of complex anesthesia care in a variety of clinical settings.
- Develop effective strategies for managing ethical dilemmas inherent to areas where anesthesia is administered as well as interactions with all medical personnel.
- Demonstrate leadership by showing the ability to assess health outcomes in a variety of populations, systems and clinical settings, while integrating and applying current research.
- Analyze scientific literature related to anesthesia and apply it to practice or in a culturally competent manner.
- Complete scholarly work or project that furthers or enhances the practice of anesthesia.
- Demonstrate effective communication with patients, staff, families, and all parts of the patient care and anesthesia team, including other health professionals.
- Employ teaching and learning principles for anesthetists to assist with patient education, family education and mentoring.
- Apply safety concepts that enhance patient care and ensure provider safety, including discussion of global safety issues, from point of care to system issues.
- Provide culturally sensitive and competent care in an ethical and moral manner.
- Demonstrate scholarship through leadership activities, publications, presentations, either individually or in collaboration with other anesthesia providers or healthcare professionals.

- Use technology to improve and support patient care and critically evaluate research and data base resources to assist clinical decision making and interpret data relating to complex anesthesia care.
 - Use a systematic approach to translate research based evidence and data to determine best practice techniques for anesthesia delivery.
 - Advocate for health care policy change to advance the specialty of nurse anesthesia and improve patient care and safety through participation in advocacy activities, involvement in professional organizations and community interaction.
 - Develop strategies for healthcare and anesthesia improvement based on evidence based practice, advocating clinical excellence while maintaining a moral and ethical framework.
 - Evaluate how financing impacts the delivery of healthcare, including economic strategies that enhance or encumber the practice of anesthesia.
- Proportion of students who will achieve licensing, certification, or registration.

All students that successfully complete all aspects of the Entry-Level (BS – DNAP) option will be eligible to take the National Certification Exam (NCE). It is anticipated that greater than 90% of Entry-Level (BS – DNAP) option graduates will pass the NCE on the first attempt.

Graduates of the Completion (MS – DNAP) option will have already achieved certification as CRNAs prior to beginning the program.

- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.

The COA's mandatory threshold pass rate for first time takers as defined in the Certification Examination policy is 80% of a composite of the previous five (5) years' national Council on Certification of Nurse Anesthetists (CCNA) pass rate for first time takers. In 2012 the mandatory threshold was 70%. Missouri State University's School of Anesthesia's pass rate in 2013 was 100%, which exceeded the threshold²².

²² Council on Accreditation of Nurse Anesthesia Educational Programs (COA), "Accreditation Policies and Procedures." Last Print Date May 15, 2013. <http://home.coa.us.com/accreditation/Documents/Policies%20and%20Procedures%20Manual%20Revised%20May%202013.pdf>

Students in the DNAP program also complete a culminating capstone project that presents an opportunity for students to investigate a problem relevant to his or her practice. The project should reveal the student's ability to analyze, interpret, and synthesize information; demonstrate the student's knowledge of the literature relating to the project and acknowledge prior scholarship on which the project is built; describe the methods and procedures used; present results in a sequential and logical manner; and display the student's ability to discuss fully and coherently the meaning of results. All projects will be conducted in accordance with generally accepted research methods and ethical principles.

- Placement rates in related fields, in other fields, unemployed.

It is anticipated that at least 95% of graduates desiring employment will be employed in their area within three months of graduation; 100% of those seeking employment are expected to be employed within six months of graduation. A small number may not seek immediate employment due to life circumstances.

- Transfer rates, continuous study.

It is anticipated that few, if any, transfer students will be admitted to the program due to the cohort nature of the program. However, transfer will be allowed in those cases in which a good match of prior coursework is evidenced. The Program will accept no more than six credit hours of transfer coursework into the DNAP program; no transfer coursework may be credited toward courses with an ANE prefix.

Program Accreditation

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide reasons.

Upon approval from the Missouri Coordinating Board of Higher Education (CBIIE), a change request will be submitted to the Higher Learning Commission (HLC) for approval to offer a clinical doctorate degree in nurse anesthesia practice. Once approval has been granted from HLC, the School of Anesthesia will seek accreditation of the DNAP from the Council on Accreditation of Nurse Anesthesia Educational Programs (COA). The COA has developed accreditation guidelines for DNAP Programs and Missouri State University followed those guidelines in developing the program and will use those to prepare for accreditation review.

The Master of Science in Nurse Anesthesia (MSNA) offered by Missouri State University is currently accredited by the COA through 2016.

Alumni and Employer Survey

- Expected satisfaction rates for alumni, including timing and method of surveys

All students will complete an exit interview at time of graduation. Alumni will be surveyed at 1 year and 2 years post-graduation. It is expected that all alumni will describe themselves as being "satisfied" to "completely satisfied" with their experience and knowledge gained from the program. It is expected that these surveys will help identify some areas that need improvement and provide suggestions for improvement. Additionally, alumni representatives will be asked to take part in an advisory board that will be utilized to provide feedback and assist with monitoring and improvement of the program.

- Expected satisfaction rates for employers, including timing and method of surveys

All employers will be asked to complete a survey relating to the program alumni hire 1 year and 2 years after hiring. It is expected that all employers will indicate a rating of "satisfied" to "completely satisfied" with program alumni that they hire. It is expected that these surveys will help identify some areas that need improvement and provide suggestions for improvement. Additionally, employers that are willing and able will be asked to take part in an advisory board that will be utilized to provide feedback and assist with ensuring continuous monitoring and improvement of the program.

4. Plans for accreditation, including a rationale if it is not a goal for this program

As noted above, Missouri State University and the Nurse Anesthesia program will seek accreditation of the DNAP from the COA upon approval from the HLC. The COA has developed accreditation guidelines for DNAP programs, which Missouri State University used to develop the proposed program. The MSNA currently offered by Missouri State University is accredited by the COA through 2016.

5. Institutional Characteristics demonstrating why your institution is particularly well equipped to support the program

"Missouri State University is a public, comprehensive metropolitan system with a statewide mission in public affairs, whose purpose is to develop educated persons. The University's identity is distinguished by its public affairs mission, which entails a campus-wide commitment to foster expertise and responsibility in ethical leadership, cultural competence and community engagement. The academic experience is grounded in a general education curriculum which draws heavily from the liberal arts and sciences. This foundation provides the basis for mastery of disciplinary and professional studies. It also provides essential forums in which students develop the capacity to make well-informed, independent critical judgments about the cultures, values and institutions in society.

The Missouri State University campuses are structured to address the special needs of the urban and rural populations they serve.

- Missouri State University-Springfield is a selective admissions, graduate level teaching and research institution.
- Missouri State University-West Plains is a separately accredited open admissions campus primarily serving seven counties in south central Missouri.

- Missouri State University-Mountain Grove serves Missouri's fruit industry through operation of the State Fruit Experiment Station.
- Missouri State Outreach provides anytime, anyplace learning opportunities through telecourses, Internet-based instruction, iTunes U and through its interactive video network.

The University also operates various other special facilities, such as the Darr Agricultural Center in southwest Springfield, the Journagan Ranch in Douglas County, the Jordan Valley Innovation Center in downtown Springfield, the Bull Shoals Field Station near Forsyth, Baker's Acres and Observatory near Marshfield, the Missouri State University Graduate Center in Joplin and a branch campus at Liaoning Normal University (LNU) in Dalian, China.²³

Missouri State University is well-situated to support the development and implementation of clinical doctorate programs. There are currently three clinical doctorate programs – Audiology, Physical Therapy, and Nursing Practice - as well as a cooperative doctorate in Education. The most recent transition was the Nursing Department's Master of Science in Nursing (MSN) Family Nurse Practitioner Specialization to the Doctor of Nursing Practice (DNP).

The proposed Doctor of Nurse Anesthesia Practice will be administered by the College of Health and Human Services. The College works to instill the public affairs mission and focuses on improving the health and well-being of people in Missouri, the nation, and the global community through education, research, and service. The curriculum of the DNAP program incorporates the three pillars of the public affairs mission of cultural competence, community engagement, and ethical leadership through coursework, clinical practicum, and research projects.

The College offers a variety of strong undergraduate programs along with 14 graduate degrees and five graduate certificate programs in the health and human services. These programs have excellent reputations, maintain national accreditation from their disciplines when available, and produce graduates who achieve high first-time pass rates on national exams after program completion. Many CHHS programs have long-term established relationships with the healthcare institutions in the region, including rural communities, which will benefit the DNAP program when seeking clinical placement sites for students.

The Nurse Anesthesia program has been housed within the Biomedical Sciences Department for nearly 20 years. Biomedical Science faculty members have provided instruction to Nurse Anesthesia students in the basic sciences and have mentored student research projects. The Nurse Anesthesia program has a long-standing record of success, graduating highly competent professionals each year. Alumni practice throughout the United States with 80% practicing in Missouri or Southwest Missouri with many providing services to rural or underserved populations.

The Nurse Anesthesia program benefits from the use of a new state-of-the-art cadaver anatomy laboratory and a dedicated Nurse Anesthesia Simulation Laboratory that includes a high-fidelity human patient simulator. The program plans to expand the Simulation Laboratory by purchasing

²³ Missouri State University. "Mission Statement." <http://www.missouristate.edu/about/missionstatement.htm> (accessed November 11, 2013).

a pediatric high-fidelity simulator. The University is in the process of planning a new 50,000 square foot health education building, which will provide expanded space for the Nurse Anesthesia program as well as other health programs within the College of Health and Human Services.

References

- American Association of Nurse Anesthetists (AANA). "AANA Position on Doctoral Preparation of Nurse Anesthetists Adopted: June 2, 2007." Accessed November 11, 2013. http://www.aana.com/ceandeducation/educationalresources/Documents/AANA_Position_DTF_June_2007.pdf.
- American Association of Colleges of Nursing (AACN). "Designing DNP Programs to Meet Required Competencies – Context for the Conversation." Accessed November 4, 2013. <http://www.aacn.nche.edu/dnp/JK-2013-DNP.pdf>.
- American Association of Nurse Anesthetists (AANA). "Doctor of Nurse Anesthesia Practice (DNAP) Q and A." Accessed November 22, 2013. http://www.dnap.com/doctor_of_nurse_anesthesia_DNA.html
- Bureau of Labor Statistics, U.S. Department of Labor. "Nurse Anesthetists, Nurse Midwives, and Nurse Practitioners." *Occupational Outlook Handbook, 2014-15 Edition*. Accessed January 3, 2014. <http://www.bls.gov/ooh/healthcare/nurse-anesthetists-nurse-midwives-and-nurse-practitioners.htm>.
- Daugherty, L., R. Fonseca, K. Kumar, and P. Michaud. "An Analysis of the Labor Markets for Anesthesiology." *RAND Corporation* (2010). http://www.rand.org/pubs/technical_reports/TR688/.
- GasWork.com, Inc. "Search-CRNA Jobs." Accessed August 14, 2013. <http://gaswork.com/search/CRNA/Job/All>
- Missouri Nurse Anesthesia Association (MoANA). "Missouri Anesthesia Providers by County." Accessed December 18, 2013. <http://moana.org/2011/10/11/missouri-anesthesia-providers-by-county/>
- Missouri Association of Nurse Anesthetists (MoANA). "Jobs." Accessed November 18, 2013. <http://www.moana.org/jobs>
- Springfield Chamber of Commerce. "Data Profile Overview." Accessed November 18, 2013. <http://www.business4springfield.com/data-profile/overview/>.
- American Association of Nurse Anesthetists (AANA). "Federal Government Affairs." Accessed November 18, 2013. www.aana.com/advocacy/federalgovernmentaffairs
- Needleman, Jack, and Ann Minnick. "Anesthesia Provider Model, Hospital Resources, and Maternal Outcomes." *Health Services Research* 44, no. 2 (April 2009): 464-82.
- Council on Accreditation of Nurse Anesthesia Educational Program (COA). "Accredited Nurse Anesthesia Programs." Accessed December 18, 2013. <http://home.coa.us.com/accreditedprograms/Pages/default.aspx>

Truman Medical Center. "School of Nurse Anesthesia." Accessed December 18, 2013.
<http://www.trumed.org/trumedweb/crna/CRNA-design.asp>

Council on Accreditation of Nurse Anesthesia Educational Programs (COA). "Standards for Accreditation of Nurse Anesthesia Educational Programs." Revised January 2013.
http://home.coa.us.com/accreditation/Documents/Standards%20for%20Accreditation%20of%20Nurse%20Anesthesia%20Education%20Programs_January%202013.pdf

Missouri State University. "Mission Statement." Accessed November, 11, 2013.
<http://www.missouristate.edu/about/missionstatement.htm>

APPENDIX A

MOU between Mercy Springfield Medical Library and Missouri State University School of Anesthesia



Mercy Health Springfield Communities
Medical Library
1235 E Cherokee
Springfield, MO 65804
phone 417-820-2795
www.mercy.net

Memorandum of Understanding
Between
Mercy Springfield Medical Library and
Missouri State University School of Anesthesia

Purpose:

This Memorandum of Understanding (MOU) is intended to describe the library services available to students of the Missouri State University (MSU) School of Anesthesia from the Mercy Springfield Medical Library. The Medical Library Director and School of Anesthesia Program Director have primary oversight of this MOU.

Background:

The School of Anesthesia has historical ties to Mercy Springfield and its Medical Library department. The Medical Library is pleased to offer its resources and expertise to students of the School of Anesthesia. Library services not stated within this MOU may be obtained from the Missouri State University Library.

The Medical Library will provide the following to current students in good standing:

- Access to the Springfield Medical Library. The library is located on the second floor of the Springfield Hospital. Regular hours of service are Monday-Friday, 8am-4:30pm.
- Access to online library resources. Current students will be issued an individual username/password upon request of the Program Director.
- In-library use of print and audiovisual materials. Library materials may only be checked-out with prior approval of the Library Director and Program Director.
- Instruction on the use of library resources and services.
- Reference and literature search assistance from medical librarians, limited availability. Requests from students will be fulfilled as time allows. Requests regarding direct patient care needs and requests from hospital physicians and coworkers will take priority. Students are encouraged to contact the MSU library for assistance.

The School of Anesthesia Program Director will:

- Notify the Medical Library Director of current students to be granted the above services and given notice of students that are no longer eligible for services.

This MOU is effective upon the date signed by both responsible parties. This MOU may be revised at any time upon mutual agreement and may be canceled by either party upon written notification.

Holly Henderson
Library Director, Holly Henderson
Date 12/3/2013

Monika Feeney
Program Director, Monika Feeney
Date 12-3-13

Mercy continues the tradition of the Sisters of Mercy in meeting community health needs across its seven state areas.

APPENDIX B

Communication from the University of Missouri

January 19, 2011

Dr. James E. Cofer, Sr.
President
Missouri State University
901 South National Avenue
Springfield, MO 65897

Re: Doctor of Nurse Practitioner Degree

Dear President Cofer:

This will acknowledge receipt of your December 13, 2010 letter to President Forsee and Chancellor Deaton informing them of Missouri State University's intent to seek approval from the CBHE to offer a Doctor of Nursing Practice (DNP) degree in place of its currently offered Master's Degree for Nurse Practitioners.

As you know, Section 174.225, RSMo 2005 Supp. expressly authorized Missouri State University to grant doctoral degrees in audiology and physical therapy, while at the same time prohibiting Missouri State University from offering other doctoral degrees except in cooperation with the University of Missouri, a limitation which I understand was agreed to by representatives of Missouri State University. Your letter asserts that the "planned transition from master's to clinical doctoral education [for nurse practitioners] follows the same path as previous successful transitions for the DPT and the AuD."

Under the extremely unusual circumstances summarized in your letter related to the DNP, the University of Missouri pledges not to oppose Missouri State University's request for approval by the CBHE of its desire to replace its Master's Degree for Nurse Practitioners with a degree to be known as a Doctor of Nursing Practice (DNP).

Please understand, however, that the above pledge related to the DNP does not signal that such acquiescence should be expected in other circumstances because, as you also know, Section 174.225, RSMo 2005 Supp. provides, in relevant part, as follows:

University of Missouri System COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS
Office of the President, 321 University Hall, Columbia, MO 65211-3020, 573-882-2011 www.umsystem.edu



MISSOURI

January 19, 2011
Page 2

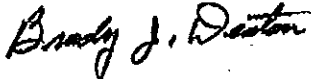
"Missouri State University shall offer engineering programs and doctoral programs only in cooperation with the University of Missouri; provided that such cooperative agreements are approved by the governing boards of each institution and that in these instances the University of Missouri shall be the degree-granting institution."

Thank you for contacting us about your request. We look forward to working together with you and the other fine people at Missouri State for benefit of this great state.

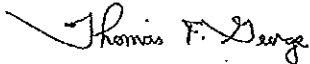
Sincerely,



Stephen J. Owens
Interim President



Brady J. Deaton, Ph.D.
Chancellor, University of Missouri-Columbia



Thomas F. George, Ph.D.
Chancellor, University of Missouri-St. Louis



Leo E. Morton
Chancellor, University of Missouri-Kansas City

c: Dr. David Russell, Commissioner of Higher Education
Dr. Steven Graham, Senior Associate Vice President, University of Missouri System

Reld, Helen C

From: Graham, Steven W. (Academic Affairs) [grahams@umsystem.edu]
Sent: Saturday, December 14, 2013 11:58 AM
To: Smart, Clifton M; Einhellig, Frank A; Reld, Helen C
Co: Foley, Hank; Schwartz, Robert W.; Wolfe, Tim M.; Cope, Glen; Hackell, Gall; Foster, Brian L. (Provost); Dean, Kenneth D.; Wray, Warren K.; Cary, Ann H.; Dean-Baar, Susan; Miller, Judith F.; Russell, David; Rusty Monholon; Turner, Rhonda
Subject: Re: nurse anesthesia programs
Attachments: Cofer letter DNP.pdf

Cliff: thank you for your note alerting us to the change in the degree program for the nurse anesthesia program at Missouri State.

We shared this information with our nursing deans and discussed the change with the UM Provosts and all agreed it simply a variation of the situation addressed in January 2011 related to the DNP program for the MSU nurse practitioner programs. We agreed that the attached letter from Interim President Steve Owens clearly articulates the key issues and limitations and the distinction between a clinical doctorate and research-based doctoral programs such as the PhD. Thus we would not oppose your request to CBHE to offer the DNAP.

Thanks for informing us of this pending change. We also wanted to acknowledge the cooperative efforts we have with MSU in areas such as Pharmacy, engineering, education, and the Caring for Missouri initiatives. We value the relationship the University of Missouri has with Missouri State University and look forward to the working with you in the future.

Steve Graham

Senior Associate Vice President for Academic Affairs

University of Missouri System

309 University Hall

Columbia, Missouri 65211

grahams@umsystem.edu

(573)882-3119



From: <Smart>, Clifton M <CliftonSmart@MissouriState.edu>
Date: Tuesday, December 3, 2013 3:46 PM
To: Steve Graham <grahams@umsystem.edu>, Frank Einhellig <FrankEinhellig@MissouriState.edu>
Cc: "Foley, Hank" <hcf2@psu.edu>, Robert Schwartz <rschwartz@umsystem.edu>, Tim Wolfe <wolfet@umsystem.edu>
Subject: RE: nurse anesthesia programs

1