ii. PROJECT NARRATIVE

A. PURPOSE: The Michigan State University College of Nursing Nurse Anesthesia Program (MSUCON NAP) is seeking a traineeship grant to provide funding for trainee licensed registered nurses who will practice in health professional shortage areas (HPSAs) designated under Section 332 of the PHS Act. The objective is that by the end of their training we will educate advanced education nurses whose practice will substantially benefit rural or underserved populations, or help public health nursing needs in State or local health departments.

The courses in the MSUCON MSN Nurse Anesthesia curriculum are structured in a specific sequence, moving from the basic philosophical tenants of nursing, into and through to the sciences, and onto the specific requirement for safe and effective anesthesia care. In this manner, faculty can identify learning content, position themselves to frame learning within a given timeframe, and assess expected learner outcomes. These materials have been approved by the College of Nursing faculty and by the University Committee on Curriculum (UCC). The educational experiences have been designed to meet the program requirements of the Council on Accreditation of Nurse Anesthesia Educational Programs (COA) and the Essentials of Masters Education for Advanced Practice Nursing from the American Association of Colleges of Nursing (AACN). The mission of the University and its Guiding Principles were considered as this program was envisioned and developed over many months. This program will contribute to the “exemplary ‘engaged university,’ transforming and strengthening outreach partnerships to address key Michigan needs and developing broadly applicable models.” This graduate program will “educate students for professional careers” (MSU Mission Statement http://president.msu.edu/mission.php) as nurse anesthetists; and continue to contribute to the national reputation of the university’s quality and distinctive programs. The College of Nursing received full accreditation for its programs from the Commission on Collegiate Nursing Education in 2012 (Prior to that the College maintained National League for Nursing Accreditation) (Attachment 2: CCNE Accreditation Letter) and finished the 10 year visit on April 3, 2012, again being awarded another 10 years of full CCNE accreditation. The Nurse Anesthesia Program has likewise received initial accreditation by the Council on the Accreditation of Nurse Anesthesia Educational Programs for meeting the COA standards applied to this program in October, 2007 and received renewal of the accreditation for a period of 10 years on April 8 – 9, 2013. (Attachment 1: Accreditation Documentation) The National Board for Certification and Recertification of Nurse Anesthetists (NBCRNA) is responsible for the certification of registered nurse anesthetists who meet all the criteria for entry into practice as a Certified Registered Nurse Anesthetist (CRNA). The Council is also responsible for the development and administration of the National Certification Examination. All students upon completion are eligible to take the national certification examination from the National Board for Certification and Recertification of Nurse Anesthetists (NBCRNA).

The curriculum contains the necessary academic content and practical clinical experience for graduates to acquire those skills and competencies necessary for their professional roles as outlined in the COA terminal competencies. A cohort of twelve students is admitted to the MSN Nurse Anesthesia Program for 2015. Admission criteria are consistent with the MSUCON graduate admission requirements and the standards for entry into a Nurse Anesthesia program. The initiatives build upon a well thought out and established graduate nursing program with emphasis on cultural competence/sensitivity.
The MSUCON Nurse Anesthesia Program (NAP) is a 78 – 84 semester hour, 28-month, full-time curriculum comprised of four (4) core nursing, five (5) advanced practice courses, eight (8) nurse anesthesia specialty didactic, and seven (7) nurse anesthesia specialty clinical courses. The curriculum meets all of the requirements of the COA and reflects the AACN “Essential of Master’s Education in Nursing” perspective. The courses are designed to provide students with both comprehensive and diverse didactic and clinical experiences. Throughout the curriculum content emphasizing the importance of targeting patients from medically underserved areas, particularly rural Michigan and minority children and adults, is emphasized. Since most of the hospital affiliates are located in and around underserved areas of Michigan and surrounding metropolitan cities, students are provided with numerous opportunities to engage in anesthesia services to these vulnerable populations. Program Director, Henry C. Talley V, PhD, MSN, CRNA and Assistant Program Director, Gayle Lourens, DNP, BSN, MS, CRNA are the primary anesthesia faculty. The nursing core courses (4) are taught by master and doctoral prepared nursing faculty. Clinical coordinators provide clinical and didactic support to the Nurse Anesthesia Program and assume the clinical supervision of students in conjunction with University Faculty.

**B. NEED:** The guiding principal behind this request is that everyone deserves equal access to a comprehensive, culturally competent, community-based health care system. Increasingly more complex health care systems demand a more educated and diverse nursing workforce prepared to meet the needs of the population for culturally sensitive and appropriate health care. In order to remain a strategically important source of patient care, the nurse anesthesia profession must ensure that an adequate supply of appropriately trained and certified nurse anesthesia students are available to meet current and predicted demand. CRNAs provide a broad range of anesthesia and anesthesia-related services within and outside the operating room and support the American Association of Nurse Anesthetists' statement that CRNAs are the predominant anesthesia providers in rural areas. Graduates of the MSU Program are the primary anesthesia providers in some areas of rural Michigan, enabling healthcare facilities in these medically underserved areas to offer obstetrical, surgical, and trauma stabilization services. In some states, Nurse Anesthetists are the sole providers in nearly 100 percent of the rural hospitals. The demands for CRNAs are strong at the local, regional, and national levels and are predicted to remain so well past the year 2015. The extent of the CRNA shortage was addressed in the most recent study of the Department of Health and Human Services (DHHS), National Center for Health workforce analysis which suggests a 13.5% overall shortfall of CRNAs (6000 CRNAs). The report further suggested that such a need could be met only through an educational system capable of producing 1800 CRNAs each year between 1990 and 2000, and 1500 nurse anesthesia students graduate each year thereafter. The need for this project is evident when considering the inadequacy of anesthesia provider services and shortages of anesthesia providers available to rural and underserved communities. As of July 20, 2014, there are 114 accredited programs, with more than 2,438 clinical sites in the United States (AANA, 2014). American Association of Nurse Anesthetists (AANA) membership data indicate that 20% of practicing CRNAs will retire in the next 8 years.

**Improving Diversity within Health Professions.**

Michigan State University is guided by values that are embedded in our rich heritage as a leading land-grant university and our current position as a world-grant institution among the best universities in the world. Foremost among our values is inclusion. The College of Nursing
(CON) is dedicated to increasing diversity through use of the College of Nursing Strategic Plan, which includes guidance initiatives to recruit and retain diverse faculty, staff, and students.

The following is excerpted from the President’s Statement on Diversity and Inclusion.

“At MSU we take great pride in our diversity. Valuing inclusion means providing all who live, learn and work at the university the opportunity to actively participate in a vibrant, intellectual community that offers a broad range of ideas and perspectives. To benefit from our campus’ diversity, we must embrace the opportunity to learn from each other. At MSU we welcome a full spectrum of experiences, viewpoints and intellectual approaches because it enriches the conversation and benefits everyone, even as it challenges us to grow and think differently.”

1) Describe the school’s approach to increasing the number of diverse (Nurse Anesthetists) through an established strategic plan, policies, and program initiatives.

Goal 1: Increase participation of traditionally underrepresented students in graduate programs particularly in the nurse anesthesia program.

Strategies:

1. Review current recruitment strategies for master of nursing programs and the effectiveness of recruiting diverse students into the nurse anesthesia program.
2. Based on best practices, develop strategies to recruit diverse students into all master of nursing programs.
3. Evaluate and develop scholarship, fellowship and assistantship opportunities for diverse students in nurse anesthesia and other master of nursing programs.

Benchmarks:

1. By the end of the 2013-14 academic years, an inventory of the MSN programs will be complete with a review of recruitment practices and the demographics of the students in each program by the College of Nursing.
2. A committee of representatives from the CON will review best practices and develop recruitment strategies to be completed by the end 2014.

The CON’s Nurse Anesthesia Program has committed to increasing diversity by recruiting and retaining disadvantaged students. The CON’s Nurse Anesthesia Program defines “disadvantaged students” in nursing as those who are non-white or those who are Hispanic, who come from family backgrounds of poverty, first generation college students, and residence for most of life in one of twenty of the region’s Michigan counties with the highest poverty and lowest educational levels.

2) Describe the school’s recent performance in recruiting and graduating students from underrepresented minority groups and/or students from educationally and economically disadvantaged backgrounds (into the organization’s Nurse Anesthesia Program).

Goal 2: Increase the retention rate of traditionally underrepresented students.

Strategies:
1. Review and analyze data trends for retention from academic year to academic year by underrepresented groups.
2. Identify retention rates by major and student groups.
3. Identify, review and evaluate current retention programs to determine effectiveness.
5. Develop or enhance programs that are aimed at increasing success rates of students from underrepresented groups.

Benchmarks:
1. Collect and analyze relevant retention trends to establish baseline data for 2013-14. Increase percentages will be set for each year based on this data.
2. Make recommendations for program/concentrations based on best practices that will increase the retention of underrepresented students.

The CON’s Nurse Anesthesia Program is committed to increasing the numbers of students with underrepresented minority groups, and those students from educationally and economically disadvantaged backgrounds. Currently, there are a total of 36 students admitted into the MSN Anesthesia program who will receive support from this grant. Placing anesthesia prepared nurses at the forefront, nurse anesthesia students will be able to maximize their intellectual and clinical skills as they translate medical science into clinical nursing and health care interventions aimed at reducing health disparities among medically underserved populations.

RESPONSE TO PROGRAM PURPOSE
(a) WORK PLAN
Lecture content will be recorded in digital video. Student activities will be captured within content management systems and logged into database storage. All course syllabi and supporting documents and activities are archived through the Blackboard platform. It is our sincere desire that the benefits from programs, such as the NAT program that focuses on care to patients with MCC and underserved populations can be disseminated throughout the country. Faculty presentations at local and national conferences and publications on this project will contribute significantly to duplication by other programs. Project outcomes, including assessment instruments, surveys, online forums, and technology courses may be easily replicated by other nurse anesthesia programs. The NAT program provides financial support for the graduate to provide interdisciplinary leadership, translation of evidenced-based findings into culturally-competent practice, and improvement of health outcomes to the underserved.

(b) RESOLUTION OF CHALLENGES
One of the challenges of any nursing program in the United States is the continued development of clinically-competent faculty who are provided with resources to teach and the ability to utilize the latest technology. To maintain the goals of the nurse anesthesia program, there is a need to continually educate faculty about technology-enhanced health care. The College of Nursing has a cadre of faculty members who are Advanced Practice Nurses with doctoral preparation. Most of these faculty members maintain faculty practices with partial or total care to underserved populations; the entire nurse anesthesia faculty continues to practice in the clinical areas. All APN fulltime faculty members with doctorate preparation are teaching clinical courses at the master’s level and teaching other courses.
IMPACT – EVALUATION AND TECHNICAL SUPPORT CAPACITY

(a) Evaluation Technical Capacity:
Compliance with the stated desired outcomes and evaluation indicators will be utilized. Experience with very similar projects in this area of funding has allowed us to become familiar with the methodological processes, proven to provide a clear understanding of the scope of the funding requirements, and strengthened our capacity to carry out this proposal.

(b) Logic Model and Timeline: The following logic model represents how we want to operationalize our traineeship project to achieve the stated objects in the three components of input, activities, and outcome in a flow chart format and the proposed receipt and distribution of traineeship funds.

Evaluation Methods:

Evaluation of Project Outcomes

<table>
<thead>
<tr>
<th>Project Objective</th>
<th>Evaluation strategies and indicators</th>
</tr>
</thead>
</table>
| Provide funding for trainee licensed registered nurses enrolled as full-time students in a master’s nurse anesthesia program. | 1. Monitor the number of applicants and admissions  
2. Track participation in recruitment events for potential NA students with the Office of Student Support Services (OSSS).  
3. Survey NA applicants to determine if potential for NAT programs has impacted their plan for full-time study.  
4. Input from community partners to determine most effective strategies to recruit candidates from underserved and rural locations and diverse populations.  
5. Monitor, collect and report number of enrollees, number of graduates, employment plans for both NAT awardees and non-NAT students for each year of the project that we receive funding.  
6. Monitor progress of NAP traineeship awardees in the NA program at midterm and end of semester throughout program.  
7. Use Typhon clinical tracking system to review the clinical assignments of each NAT recipient each semester to assess the diversity and breadth of clinical caseload and plan placements to assure exposure to underserved populations.  
8. Students favorably rate their participation in the traineeship program.  
9. Evaluation of quality outcomes/assurance is provided through of performance outcomes. |

Evaluation of Project Outcomes Continued

<table>
<thead>
<tr>
<th>Project Objective</th>
<th>Evaluation strategies and indicators</th>
</tr>
</thead>
</table>
| Educate advanced education nurses who will practice in Medically Underserved Areas. | 1. Solicit feedback from OSSS staff, faculty and participants on the employment status and placement of participant in the NAT program.  
2. Track NAT awardees’ progress toward degree completion and report on any deviations from full-time program plan.  
3. Implement formative evaluation model for NAP, critically evaluate responses, and make modifications as needed to improve course offerings and program outcomes.  
4. Participants will complete job placement survey, end of |
program competency assessment, and 1 and 5 year alumni follow-up survey. This will include practice patterns, client population, and NAT awardees perception of their preparation to care for underserved populations.

Should the proposal be funded, an annual Uniform Progress Report will be submitted describing achievements in meeting the stated objectives in this proposal, including financial status, and current data related to enrollment of students by race and ethnicity.

**ACCOMPLISHMENT SUMMARY:** This request for funding is for the same program area and discipline as previously funded. The previous grants have benefited the students during their second year of training; a time in which they were unable to hold gainful employment. Twenty-two students were funded between 2013 and 2014; all have graduated, and are now employed; a testament to the devotion they had for the granting agency and the assistance they received. Since graduation, feedback from these same students have helped to form the current objects for this request which will lead to the training of advanced practice nurses to enable them to obtain the necessary knowledge and technical skills to handle functional areas as specialty nurses in anesthesia units and emergence situations.

**ORGANIZATIONAL INFORMATION: Institutional resources** — Michigan State University was founded in 1855 as the first land grant university. The land grant mission has been actualized and is actively followed in the present through strategic community partnerships and a well-developed Extension and Community Outreach & Engagement Program. The university is located in East Lansing, Michigan, about 3 miles east of the Michigan State Capitol in Lansing, Michigan. Academic support at MSU is outstanding and includes excellent library services and support for distance education. Students have access to computer labs, simulation centers, a research center and other instructional support services. MSU is a research extensive AAU University with seventeen colleges which include three medical schools (allopathic, osteopathic, and veterinary) and several other colleges (business, communications, engineering, and law) with professional programs. This array of programs provides nursing faculty and students with opportunities to communicate and collaborate across disciplines participating in creating science and educating professionals across a wide spectrum of health related fields.

**Community based training capacity** — MSU is an outstanding environment to support the education of advanced practice nurses. MSU CON has a track record of preparing Advanced Practice Nurses for over 20 years and established the first family program in Michigan. As described earlier MSU CON has clinical placements for Nurse Anesthesia (NA) students in underserved communities throughout the State with emphasis on developing sites in the rural communities of western and northern Michigan.

**Institutional commitment** — The mission of Michigan State University's College of Nursing is to enhance the health of the community by providing excellence in nursing education, nursing research and nursing practice.

We will advance the profession of nursing and serve as an advocate for optimal health care for all people. **Education:** Provide a balanced array of educational programs to prepare nurse leaders for practice, research, and education. **Research:** Increase research activity in focused areas of excellence and expand team science. **Practice:** Lead nursing practice partnerships that translate nursing science into practice to improve health outcomes. This mission supports the development of NA programming and the implementation of the NAT program.
Institutional capacity to conduct project—Dr. Talley is the Director of the Nurse Anesthesia Program and will serve as the Project Director for the proposed project. Dr. Talley will be responsible for the overall planning, implementing, directing, evaluating, and fiscal management of this project. Dr. Talley has been a nurse anesthetist for more than 30 years and has extensive academic and management experience as Director of Operations for Anesthesiology Service in Memphis, Tennessee. Dr. Talley will assure compliance with the required administrative procedures, manage the project activities as outlined in the Methodology, and facilitate functions of the Assistant Director, Clinical Coordinators, and Project Evaluator. The Project Director will report to the Associate Dean for Academic and Clinical Affairs regarding the implementation of this project.

A designated Office of Student Support Services advisor is assigned to work with the nurse anesthesia students. She coordinates communication with candidates during the recruitment process, supports faculty in the selection process, and continues to advise students on policy matters during their course of study. The Office of Academic Instructional Support Services provides the professional and technical support for clinical learning experiences, simulation laboratory, distance and on-line learning across the programs. Staff in this area includes an instructional designer who supports faculty in the design of the web-based components of the curriculum. The clinical placement coordinator supports the clinical placement process from negotiating clinical contract with sites to preceptor screening, preceptor orientation, collection and development of reports evaluating clinical sites and preceptors. The simulation lab coordinator and assistant director supports the clinical simulation events for the curriculum. These services provide strong support for our recruitment and retention of nurses from rural Michigan to the NA program and the preparation of these students to become competent CRNAs in their communities.

Community underserved training settings—The CON NA faculty members participate in clinical practices that are directly tied to meeting and providing access and care to underserved populations. These populations include uninsured and underinsured individuals targeted for access through the Affordable Care Act and will be used as clinical sites for NA students who are able to work with clinical preceptors in the care of underserved populations in these sites. Additionally, MSU CON currently uses Community Health centers, religious affiliated clinic for underserved Hispanic community, Tribal clinic, Veteran Administration clinics, County health departments and private practice settings in Rural Community settings throughout the state.

Dr. Talley and MSU CON have a track record of success in implementing HRSA awards. He has served as Project Director for the NAT program for the past 5 years and was also Project Director for an Advanced Nursing Education (ANE) grant. In addition, MSU CON is currently implementing an NAT and Advanced Nursing Education projects.

Veterans’ transition support—MSU CON is collaborating with Lansing Community College (LCC) to support advanced education for associate degree graduates with one program specific for Veterans with healthcare training. In January, 2012, LCC launched an academic program that was the first of its kind in the country. This program creates a pathway for trained military medics to transition first to civilian paramedic certification, and then progress through Lansing Community College’s Advanced Standing Nursing track. This nursing track is designed to allow paramedics to complete a 3-semester program and obtain licensure as Registered Nurses. Following this pathway from Paramedic to RN, these students who began as military medics, are
eligible to continue their educational studies at Michigan State University to earn their BSN degree with the MSU-LCC nursing concurrent enrollment program. Veteran participants in the LCC program will receive targeted advisement regarding the MSU/LCC program to support their continuing seamless progression to BSN and then APN if desired. This innovative program recognizes and rewards military service members for their healthcare work experience in the military and provides an avenue into a licensed profession in the civilian workforce.

MSU offers a full portfolio of supports for Veteran students. A senior level team of student services and academic leaders met regularly to coordinate the academic and support services to facilitate veterans’ transition to the University community. MSU CON as well as the Allopathic and Osteopathic medicals schools has pledged to support the Joining Forces initiative.