



# **Proposal for Provisional Approval of a New Doctor of Philosophy Program in the School of Nursing**

This proposal is submitted by the faculty of the School of Nursing  
within the College of Health Sciences

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**University of Delaware  
School of Nursing**

**Resolution**

WHEREAS, nurse scientists are essential members of interdisciplinary health science research teams that are developing new knowledge to address complex health care needs of society;

WHEREAS, there is a current shortage of PhD-prepared nursing faculty and a predicted large number of faculty retirements by 2015 necessitating programs that prepare faculty for academic positions within schools of nursing.

THEREFORE, this program will meet the urgent need for nursing scholars within the state of Delaware and the surrounding region.

WHEREAS, the proposed Doctor of Philosophy in Nursing Science is in keeping with the University of Delaware's Path to Prominence<sup>TM</sup> milestones of becoming a Premier Research and Graduate University with robust programs of graduate research and education. Development of nursing scientists is also in concert with the Delaware Health Science Alliance which combines the priorities and assets of Christiana Care Health System, Nemours/Alfred I. DuPont Hospital for Children, and Thomas Jefferson University, in addition to University of Delaware in providing world-class health education, interdisciplinary research, and quality healthcare.

WHEREAS, the proposed Doctor of Philosophy (PhD) in Nursing Science has been based on a critical review of prominent PhD in Nursing programs nationally and there is no similar program within the state offering a program of this type;

WHEREAS, increasing numbers of master's nursing students and practicing nurses desire to further their formal education and advance the science of nursing through research, scholarship and education of new nurses;

WHEREAS, the faculty of School of Nursing Science have a 30-year history of teaching nursing courses at the graduate level in the areas of advanced nursing practice and healthcare administration;

RESOLVED, that the School of Nursing Faculty within the College of Health Services supports the provisional establishment, for five years, of a new program leading to the Doctor of Philosophy (PhD) in Nursing Science, effective October 29, 2009.

**UNIVERSITY OF DELAWARE  
PROPOSAL FOR DOCTOR OF PHILOSOPHY in NURSING SCIENCE PROGRAM**

**December 12, 2009**

**1. Mission Statement/Mission/Executive Summary**

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The proposed University of Delaware School of Nursing doctoral program prepares researchers and academic faculty for positions in college, university, and health care settings. Graduates are prepared to advance the art and science of nursing and to assume leadership positions in the profession. They will take responsibility for shaping and advancing healthcare, with a goal of improving individual, family and population health through the integration of theory, research, and evidence-based practice.

The PhD in Nursing Science program emphasizes specific areas of study in which nursing makes a significant contribution towards health. These areas are defined by the research expertise of faculty in the context of interdisciplinary resources available at the University of Delaware and Delaware Health Sciences Alliance campuses and the local, national and international communities. Graduates are prepared to collaborate with other scientists and health professionals to contribute to the development of knowledge. The breadth of focus of the PhD in Nursing Science curriculum ranges from nursing research in the bio-behavioral sciences to health services. The PhD in Nursing Science Program is grounded in the School of Nursing philosophy about human beings, society, health, and professional nursing.

- Human beings are bio-psycho-social-cultural systems that have all the properties of open systems; they possess universal needs that influence their capacity for intellectual, emotional, social, and humanistic accomplishments; as they interact with the environment, human beings make choices and decisions that influence need satisfaction.
- A society is an organization of individuals and groups that, through interactions form communities of various sizes and descriptions; societies are dynamic in nature and culturally diverse; societies assure that the needs of their members are met; individuals, families, and communities develop social roles, identities and values through opportunities provided by the society in which they live.
- Health embodies biological, psychological, and socio-cultural dimensions; it is a state of being that fluctuates between varying degrees of wellness and illness; when human needs are altered, varying levels of equilibrium within health may result; if self-regulatory processes fail to maintain or restore wellness (a degree of wellness), individuals may become functionally inadequate and unable to develop or survive.

- Professional nursing is an essential component of the health care delivery system; it is based on a rapidly expanding body of scientific knowledge and skills that promote the achievement, maintenance, or enhancement of dynamic equilibrium across the lifespan; through the research process and the nursing process nurses advance knowledge and evidence-based practice.

### **Program Outcomes**

1. Generate new knowledge through research and theory testing;
2. Reflect a nursing and interdisciplinary perspective in research and scholarly endeavors;
3. Evaluate the relationship of the expanded knowledge base in nursing and external forces (i.e., economic, demographic, political, cultural) on the provision of health care to society, the education of nurses, and the development of health policy;
4. Contribute to solutions that advance health care in a culturally diverse society through communication of knowledge to the intra- and interdisciplinary scientific communities and the community-at-large;
5. Examine ways in which nursing knowledge and practice are related to and influenced by historical developments, philosophical thought, and cultural diversity.

## **2. Market Assessment**

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### **2.1. Context**

#### **2.1.1. Compatibility with University of Delaware Mission**

This proposed PhD in Nursing Science program is a critical component supporting Academic Priorities of the University of Delaware. Consistent with major initiatives of both the College of Health Science and the University of Delaware, this proposed PhD program will help to move the University forward in its Path to Prominence<sup>TM</sup>. This proposal is in keeping with the Path to Prominence<sup>TM</sup> milestones of becoming a Premier Research and Graduate University with robust programs of graduate research and education.

#### **2.1.2. Description of Planning Process**

The proposal planning process has involved several years of faculty discussions regarding the need for doctoral level education, student and healthcare workforce needs, faculty resources available at the University of Delaware, and nation-wide trends. In winter 2009, an ad hoc committee was established to draft a proposal for a PhD in Nursing Science. This committee was appointed by Kenneth Miller, Professor and Director, School of Nursing (SON) and consisted of four faculty members, Veronica Rempusheski, Professor and Jeanne K. Buxbaum Chair of Nursing Science, Kathleen Brewer-Smyth, Associate Professor, Kathleen Schell, Associate Professor (Committee Chair), and Gail Wade, Associate Professor. The committee met regularly

during 2009 to develop the proposal and held several full day workshops to draft program curriculum and policy statements. Committee members examined existing USA doctoral programs in nursing, professional position statements and literature focused on the preparation of doctoral nursing students and the shortage of nursing faculty and researchers.

SON faculty members were kept informed of the evolving proposal through PhD planning committee meeting minutes shared on-line, periodic reports and discussions at faculty meetings, and a 2-hour open forum focused entirely on the proposed program. Drafts were revised based on faculty and administrative input. Furthermore, SON undergraduate and graduate students and practicing nurses in the region (who attended a state nursing conference, or were working in large healthcare facilities in DE) were surveyed about their interest and opinions about a doctoral program in nursing. Of the 332 respondents who lived in Delaware, Maryland, Pennsylvania and New Jersey, 29% were interested in completing a doctoral program in the next five years and 46% were interested in completing a doctoral program at the University of Delaware. See **Appendix A** for detailed results of this survey.

This planning process culminated in an enthusiastic endorsement of the program by SON faculty in an electronic vote on 10/28/09. Of the 41 part-time and full-time faculty, 31 voted to approve the program and 10 individuals did not submit a vote. There were no disapprovals.

#### 2.1.3. Impact on Other University Programs

Impact on other university programs will be minimal. Students must have a baccalaureate degree in nursing and a master's degree in nursing or in a related field to be accepted into the PhD in Nursing Science program. No other majors will be eligible to apply to this program.

#### 2.1.4. Utilization of Existing Resources

This PhD in Nursing Science program will utilize existing resources at the university. Individuals with expertise and experience in graduate-level instruction are currently faculty members in the School of Nursing. Nine faculty have functioned as dissertation advisors or members of dissertation committees in the disciplines of nursing, education, psychology and public policy. Several faculty have taught in doctoral courses, both intramurally and extramurally. Non-nursing faculty experts from the Delaware Health Science Alliance and the University will serve on dissertation committees chaired by nursing faculty members. SON faculty researchers working in conjunction with other bio-behavioral scientists on campus will attract, retain, and increase the quality of graduate students and the number of talented faculty in this new program. The Office of Graduate and Professional Education is committed to promoting cross-program/college collaborations and increased opportunities for interdisciplinary programs. Inter-professional collaborations will emerge increasing scientific rigor and broader significance. This program will strengthen and incorporate existing health-based partnerships, courses, and faculty.

The core courses include two relevant statistics courses at the University of Delaware. Students will select two courses from the following:

- EDUC 812: Regression and Structural Equation Modeling (3 credits)
- EDUC 856: Introduction to Statistical Inference (3 credits)

- EDUC 862: Design and Analysis of Experiments (3 credits)
- PSYC 860: Psychological Statistics (3 credits)
- PSYC 861: Psychological Statistics (3 credits)

In addition to the core research courses taught by nursing faculty, students will select a 3-credit research methodology course from existing university programs that is specific to their research focus. Examples include:

- BUAD 820: Data Analysis of Quality Management (3 credits)
- EDUC 872: Advanced Educational Measurement (3 credits)
- EDUC 865: Educational Measurement Theory (3 credits)
- HESC 690: Biomechanical Methods (3 credits)
- HESC 804: Clinical Measures in Exercise Physiology (3 credits)
- UAPP 808: Qualitative Methods for Program Evaluation
- UAPP 800: Research Methods and Data Analysis

Finally, students will complete 12 credits of Cognates, electives taken to build substantive knowledge on a dissertation topic (in disciplines relevant to their program of study) and their research focus. Selection of cognate courses will be determined in conjunction with their program advisor. Permission from faculty in other departments will be sought prior to final approval of a program of study if appropriate prior to registration for each course. See **Appendix B** for letters of endorsement from applicable college and department administration.

Student research assistants will have opportunities to enhance learning through participation in dissertation work and faculty research. Research findings will translate into evidence-based health care practice with potential global application. This PhD program is anticipated to increase the current level of research funding, number of high ranking peer reviewed publications, number of yearly citations attributed to each of the participating departments and centers, and to build research infrastructure. Because there are no PhD in Nursing Science programs in the state of Delaware, this program will promote a path for advancement of nursing science within the state and provide opportunities for recognition of nurse scholars nationally and internationally.

## **2.2. Student Demand and Target Population**

Students must have a baccalaureate degree in nursing and a master's degree in nursing or in a health related field (e.g. health administration) to enroll in the program. The first several cohorts of students will enroll full-time, but part-time may be considered in the future. At least three academic years of graduate academic work are normally required for the Ph.D. degree. At least one continuous academic year must be devoted exclusively to full-time study (9 credit hours per semester) in the major field in residence at the University of Delaware. This residency requirement may be fulfilled using a fall and spring semester combination or a spring and fall semester combination, but summer or winter sessions do not meet the qualification.

### **2.3. Transferability**

Students interested in transferring doctoral credits from other institutions will be evaluated on an individual basis. See specific details under 3.3.

### **2.4. Demand and Employment Factors**

Despite a projected 23% increase in registered nurse employment by the year 2016 (Bureau of Labor Statistics, United States Department of Labor, 2009), supply does not meet demand. The nursing shortage is predicted to escalate 20% in 2015 and up to 29% in 2020 (National Center for Health Workforce Analysis, 2002). The number of new graduates will not keep pace with the number of aging nurses who are retiring. One of the major factors influencing the current nursing shortage is a faculty shortage. Faculty shortages result in potential students being turned away (Allan & Aldebron, 2008; American Association of Colleges of Nursing [AACN], 2005; National Center for Health Workforce Analysis, 2002; Yordy, 2006). In fact, the University of Delaware BSN program has over 1000 applicants for approximately 140 freshmen admissions. Increasing class size is unrealistic, because there are currently not enough faculty to teach these students. Vacant faculty positions in the School of Nursing remain open for several reasons, e.g. dearth of doctorally prepared, qualified candidates, the desire of experienced research faculty to work with doctoral students. Reasons for a faculty shortage include the “graying” of nurse educators, limited time and finances needed to pursue a doctorate, and the perception that salaries and benefits are typically better in clinical practice as compared to academia (Allan & Aldebron, 2008).

The proposed PhD in Nursing Science program will prepare students for a variety of career opportunities. Graduates will work as leaders in research centers, healthcare agencies (e.g., hospitals, nursing homes, outpatient clinics, and rehabilitation centers), local and national public health systems (Department of Health and Human Services, Center for Disease Control), and industry. In the policy arena, our PhD graduates will work with consumer advocates and influence legislation and litigation efforts needed to make changes in healthcare delivery. Data collection over time by our graduates will assist in building databases for healthcare providers and community-based services. Applied research projects and the data that they generate will have healthcare policy implications (Harrington, 2006).

Many PhD-prepared nurses are tenure-track or tenured faculty in schools of nursing throughout the country. In this role, they fulfill a research and scholarship, teaching, and service mission that is typical of most academic settings. Doctoral study provides the framework for a program of research, experience with grant writing and funding, and a research trajectory. Graduates of our program will teach undergraduate and graduate students and promote the scholarship of teaching through presentations, publications and research. PhD in Nursing Science graduates will be researchers who are knowledgeable about essential philosophical, ethical and theoretical approaches, diverse methodologies, and analytical strategies integral to the building of the rigorous scientific basis for the profession (AACN, 2006). Ideally, their research and teaching foci will direct their service contributions in professional organizations and alliances, university/college/department committee work, and community outreach.



PhD-prepared nurses bridge the gap between research and practice. They function as principal investigators and assist others to identify problems and design research studies to promote evidence-based practice. Their role includes development of system-based infrastructures to educate and involve direct care providers in the quest for quality patient care (McNett, 2006). They are integral to the translation of research findings into practice. The PhD in Nursing Science also provides credibility within the interdisciplinary teams who collaborate and contribute to organizational initiatives and system-wide healthcare delivery (McNett, 2006).

PhD in Nursing Science graduates will be prepared to provide leadership in intra- and interdisciplinary and multi-site research in the health sciences (Hubbard, 2006). Interdisciplinary health sciences research promotes sharing of varied theoretical perspectives, talent, resources and access to special populations as well as wider dissemination of research findings. Increasingly, opportunities for funding through the NIH and multiple other nursing organizations, foundations and societies including but not limited to the National Institute of Nursing Research (NINR), National Science Foundation (NSF), American Heart Association (AHA), American Nurses Foundation (ANF), Robert Wood Johnson Foundation (RWJF), Sigma Theta Tau International (STTI), and Oncology Nursing Society (ONS), have focused on interdisciplinary efforts.

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## **2.5. Regional/State/National Factors**

### **2.5.1. Comparable courses of study in the region and why these programs cannot meet need**

Three PhD in nursing programs are located within 50 miles to the north of the UD campus in Pennsylvania: Widener University (Chester), University of Pennsylvania (Philadelphia), and Villanova University (Villanova). The PhD in nursing programs at Widener and Villanova focus

on preparation of nurse educators/teacher-scholars; Villanova requires 12 credits of required coursework in education-related courses and Widener requires 15. Villanova's program is offered online in the Spring and Fall semesters and on-campus during summer. In contrast, the University of Pennsylvania program "prepares nurse scientists for careers in research intensive environments." All three programs are 45 to 48 credits post master's in nursing degree, with UPenn's program the least prescribed with nine of its 15 required courses titled and the remaining ones selected according to a student's individualized plan of study. Delawareans attending any one of these programs would double or triple their travel distance depending on home location within the state, and pay up to three times the cost for out-of-state tuition in comparison to attending the University of Delaware program.

The UD SON PhD in Nursing Science program curriculum will fall somewhere in the middle of the options at neighboring universities, preparing academic researchers and faculty for positions in academic and health care settings, and enabling them to assume leadership positions in the profession. For example, the proposed curriculum requires two courses (six credits) in education specific to teaching in nursing programs and four courses (12 credits) of cognates (electives) according to students' individualized plan of study.

Three other PhD in nursing programs are located within 100 miles of the UD campus, in the District of Columbia and Baltimore. The UD SON PhD in Nursing Science program may be more appealing than programs at inner city settings and/or those that entail longer commutes.

Information about nursing PhD programs from other universities revealed that the slots available for applicants range from 3 to 10 annually and appear to be based on total enrollment. Inadequate faculty resources force programs to remain small; part time enrollment and an average completion rate of 5 years means that an inadequate number of PhD-prepared nurses are graduating to meet the national need for faculty and researchers in the nursing profession.

A survey by the American Association of Colleges of Nursing (AACN) revealed that over 41,000 aspiring nurses were being turned away by colleges and universities in 2008. In addition, almost 6,000 nurses were denied entry to master's degree programs and over 1,000 turned away from PhD programs. The primary reason for this is a lack of faculty (AACN Press Release, 26 Feb. 2009 <http://www.aacn.nche.edu/media/NewsReleases/2009/workforcedata.html> ). According to a Special Survey on Vacant Faculty Positions released by AACN in August 2008, a total of 814 faculty vacancies were identified at 449 nursing schools with baccalaureate and/or graduate programs across the country. In addition to the vacancies, the schools cited the need for an additional 80 faculty positions to accommodate student demand. There were approximately 1.8 faculty vacancies per school in 2008, which is shown through a national rate of 7.6%; 88.1% of these vacancies were positions that preferred the candidate to be doctorally-prepared ([www.aacn.nche.edu/IDS](http://www.aacn.nche.edu/IDS), 9/29/08). The worsening faculty shortage provides a threat to the nation's health professions education. CEOs of academic health centers identified the shortage of nurse faculty as the most severe problem followed by allied health, pharmacy and medicine ([www.aahcdc.org/policy/reports/AAHC\\_Faculty\\_Shortages.pdf](http://www.aahcdc.org/policy/reports/AAHC_Faculty_Shortages.pdf)). Age of current faculty and pending retirements within the next decade are additional factors to be considered. "According to a 2007-08 report by AACN the average ages of doctorally-prepared nurse faculty holding ranks of professor, associate professor, and assistant professor were 59.1, 56.1, and 51.7

respectively.” ([www.aacn.nche.edu/IDS](http://www.aacn.nche.edu/IDS)) Combining these data with the average age of nurse faculty retirement at 62.5 years, it has been projected that 200-300 doctorally-prepared faculty will be eligible for retirement each year from 2003 through 2012 (Berlin & Sechrist, 2002). “Efforts to expand the nurse educator population are frustrated by the fact that thousands of qualified applicants to graduate nursing programs are being turned away each year” ([www.aacn.nche.edu/IDS](http://www.aacn.nche.edu/IDS)).

#### 2.5.2. Professional associations shaping proposed curriculum

The proposed PhD in Nursing Science program curriculum at the University of Delaware is guided by the *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*, an American Association of Colleges of Nursing Position Statement (AACN, 2001). Indicators of quality faculty, programs of study, resources, students and a “systematic, ongoing, and comprehensive evaluation plan of process and outcome data” of a research-focused doctoral program are explicitly stated. Common elements of programs of study in research-focused doctoral program include core and related content in historical and philosophical foundations to the development of nursing knowledge; existing and evolving substantive nursing knowledge; methods and processes of theory/knowledge development; research methods and scholarship approaches; and development related to roles in academic, research, practice, and policy environments. Additional elements for formal and informal teaching and learning foci and outcome indicators for the program of study are explicated.

The underlying assumptions and beliefs of the PhD in Nursing Science program curriculum are guided by the mission of the National Institute of Nursing Research (NINR), the Federal institute that supports nursing research at the National Institutes of Health. According to the NINR (2009), “nursing research is the development of knowledge to establish the scientific base for the care of individuals across the lifespan. Nursing science seeks to: improve the management of symptoms during illness and recovery; enhance quality of life in those with chronic illness; promote healthy lifestyles and behaviors; reduce the risk of disease and disability; and enhance end-of-life and palliative care.”

“The mission of NINR is to promote and improve the health of individuals, families, communities, and populations. NINR supports and conducts clinical and basic research and research training on health and illness across the lifespan.” NINR extramural science sections include, neuroscience, genetics & symptom management; child & family health, & health disparities; immunology, infectious disease, & chronic disorders; and acute & long-term care, end-of-life, & training (NINR, 2009).

#### References

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## **2.6. Accrediting/Professional Mandates**

There are no specific requirements for PhD in Nursing Science programs designated by either the Delaware State Board of Nursing or the National League for Nursing. The American Association of Colleges of Nursing (AACN) supports use of the *Indicators of Quality in Research-Focused Doctoral Programs of Nursing* when developing PhD in Nursing Science programs as discussed in the previous section.

## **2.7. Other Strengths**

The School of Nursing (SON) has several strengths which are consistent with the AACN *Indicators of Quality in Research-Focused Doctoral Programs in Nursing*. These strengths convey the exceptional quality of faculty within the SON and the uniqueness of nursing research conducted by the faculty.

The SON offers a rich environment conducive to the mentoring and socialization of students. Among the outstanding faculty are six who were recognized as master teachers through excellence in teaching awards from the university and professional nursing organizations. As part of the undergraduate research course (NURS 362), students are mentored by faculty within the context of the faculty member's research study. Between spring 2005 and spring 2009, 635 undergraduate students enrolled in NURS 362 had a semester-long research experience with faculty members in the SON (28 faculty) and Dept. of Health, Nutrition & Exercise Sciences (HNES) (5 faculty), College of Health Sciences. See **Appendix C** for details. Students completed their projects and participated in a course-related poster and paper presentation session. At least ten student groups have presented a poster of their findings at local, regional and international nursing conferences. During the same time period, 17 SON undergraduate students completed Summer Research Internships with SON and HNES faculty, and presented research posters at the University's Annual Undergraduate Research Poster Sessions. Graduate students (MSN) have completed theses and scholarly projects in the areas of pediatrics, cardiopulmonary, gerontologic and psychiatric nursing and nursing/health services administration with some projects resulting in publication in peer-reviewed journals.

Additionally, Dr. Veronica Rempusheski, the Jeanne K. Buxbaum Chair of Nursing Science, the first endowed professorship in the School of Nursing established in 2006, works with graduate students to enhance research in aging. Dr. Rempusheski has extensive teaching, mentoring, course/faculty development and program consultation in PhD education, including sponsorship and research supervision of pre-doctoral and post-doctoral NIH and Hartford funded students. She has served as dissertation advisor at Boston University, Boston College, University of Rochester, and University of Kansas and currently serves as an external member of a dissertation committee at the University Of Kansas School Of Nursing. Aggressive recruitment is underway for the second named professorship in the School – the Nannie Longfellow Professor of Nursing.

Prior to his arrival at University of Delaware, Dr. Kenneth Miller, SON Director, served as chairperson of numerous master's' theses in the Graduate School of Nursing at the Uniformed Services, University of the Health Sciences, and as a committee member and consultant for

several dissertations at the University of Maryland and George Washington University. He has been a member/chair of the scientific review panels for a Breast Cancer Initiative, Women's Health Initiative, and the DHHS, Division of Nursing, Advanced Education Nursing Grant program. He has taught advanced health statistics in a doctoral program.

Dr. Bethany Hall-Long, SON Professor, has a joint appointment in Urban Affairs and is a research policy scientist in the UD Health Services Policy Research Institute. While at George Mason University, she taught a doctoral level course in health policy. Since 2004, she has participated in over a dozen dissertation committees at the University of Delaware and several external committees. In her role as an NINR funded postdoctoral fellow at the University of Pennsylvania, Dr. Kathleen Brewer-Smyth mentored pre-doctoral PhD students in concept analysis, proposal development and defense, and manuscript preparation. Other SON professors/associate professors have served as members of dissertation committees in the disciplines of nursing, education, public policy and psychology at University of Delaware, Delaware State University, University of Missouri, University of Phoenix, Widener University, and Wilmington University.

Faculty research is organized by three foci: Health Promotion & Risk Reduction Across the Lifespan; Health Systems, Management, Policy & Education; and Management of Chronic Conditions. Faculty members are involved in a variety of research initiatives including clinical research, health systems and outcomes research, and educational research. Five of the current SON faculty had a mentored research experience through the National Center for Research Resources/National Institutes of Health (NIH)-funded Delaware IDeA Network of Biomedical Research Excellence (INBRE) grant (2004-09). INBRE's purpose is to build an integrated, statewide biomedical research infrastructure of people, facilities, and programs involving the State's academic and health care institutions. The infrastructure is designed to increase research literacy throughout the State in order to increase competencies with NIH funding. A major emphasis is on building a basic and translational biomedical research capability in Delaware. Besides offering a forum for extending faculty research, INBRE provides the opportunity to partner with other educational, medical, and corporate communities within the network as well as with colleagues in the College of Health Sciences.

Interdisciplinary research is gaining momentum within the School of Nursing. Dr. Rempusheski's research collaboration in proposal development and funded studies has included persons from community and non-profit agencies, e.g., Latin American Community Center, Wilmington Senior Center, Claymont Community Center, Cancer Care Connection; Christiana Care Health System, e.g., Christiana Center for Outcomes Research, Family and Community Medicine; UD faculty from DBI, School of Education, Education Research and Development Center, and CHS Departments of HNES and PT; Thomas Jefferson University faculty from the School of Nursing, Department of Family and Community Medicine, Center for Applied Research on Aging and Health; other US universities, e.g., University of Maryland Baltimore County; and international health care and academic agencies in the Tuscan region of Italy. Six partner agencies are currently involved in the AOA-funded SILVER study and the Klemm and Rempusheski NIH-funded study to measure outcomes of outreach to elderly affected by cancer and their caregivers involves collaborators at two agencies. As principal investigator of the Delaware arm of the National Children's Study, Dr. Bethany Hall-Long is working in tandem

with faculty and researchers in UD's Center of Disabilities and the Individual and Family Studies Department as well as Nemours/Alfred I. DuPont Hospital for Children and Christiana Care. Dr. Schell has collaborated with exercise science faculty and cardiologists in studying determinants of accurate blood pressure measurement. Dr. Kathleen Brewer-Smyth has engaged in multiple research collaborations with individuals in the fields of neurology, epidemiology/biostatistics, neuropsychology, neuroscience, criminology, and psychiatry when conducting research to evaluate neurological, neuroendocrine, and neuropsychological correlates of violent and other high risk behaviors of females including homicide. Dr. Ingrid Pretzer-Aboff has partnered with faculty in the exercise science and physical therapy departments during her research with patients who have experienced stroke and Parkinson's disease. Dr. Judith Herrman has joined with individuals in the social sciences, e.g. public health, community providers, social workers, juvenile justice system, to conduct research on teen violence. Dr. Erlinda Wheeler has conducted outcomes research on bariatric surgery patients through collaboration with local surgeons.

The SON faculty has been successful in securing research grants and publishing data-based manuscripts in a variety of peer-reviewed journals. See **Appendix D** for grants obtained and/or under review since 2004 organized by the three SON research foci. From 2005-2008, the SON faculty published over 100 refereed journal articles and over 80 books/book chapters (see Table).

**Table 1 - Number of UD School of Nursing Faculty Publications per Fiscal Year, 2005-2008**

	<b>FY 2005†</b>	<b>FY 2006†</b>	<b>FY 2007§</b>	<b>FY 2008§</b>
Refereed journal publications	21	33	30	31
Non refereed journal publications [& book chapters 2004, 2005]	23*	31	5	5
Books, book chapters [2004, 2006, 2007, 2008], & monographs	23*	2	15	42

\* Book chapters counted in two categories in 2005

† School of Nursing FY Annual Reports, 2004-05 (2/1/04-1/31/05), 2005-06 (2/1/05-1/31/06)

§ V. Rempusheski reviewed raw data (CVs), 2006-07 (2/1/06-1/31/07); 2007-08 (2/1/07-1/31/08)

The College of Health Sciences, the academic home of the School of Nursing, is building significant research infrastructure to provide additional resources to facilitate the expansion of research within the College. The College is in the process of hiring a biostatistician/epidemiologist and a second grants manager and is also investigating strategies to add comprehensive statistical and research design expertise, along with a web-based toolbox for grant writers.

The newly formed Delaware Health Science Alliance (DHSA) between the University of Delaware, Christiana Care Health System (CCHS), Thomas Jefferson University, and Nemours Hospital for Children provides an open forum for engagement in collaborative research. DHSA is dedicated to generating new knowledge through interdisciplinary clinical and translational research. It combines the "priorities and assets of these member institutions" to strengthen the infrastructure needed within a research environment.

Nursing collaboration is evident every fall in a day-long nursing research and evidence-based practice conference which is co-planned and coordinated by nurse members of the four DHSA institutions. Original research paper and poster presentations, in addition to educational presentations on developing research skills, are included. Several members of the SON faculty co-chair and are committee members of this well attended event.

Through the SON's clinical and agency affiliations, collaborative research efforts are ongoing within the local health care community. Clinical affiliations provide opportunities to identify and investigate clinical research problems within the practice setting. Several faculty members are collaborators on research teams with CCHS and Nemours. During the past 5 years, SON faculty (Drs. Johnson, Klemm, Schell, Wade, and Voelmeck) have served or are serving as research mentors to staff nurses selected for the Research Apprentice program at CCHS. The competitive program requires staff nurses at CCHS to develop a research proposal, gain IRB approval, and complete a study relevant to a clinical practice problem. Dissemination of the results of several of these studies has occurred through presentations and publications in peer-reviewed journals. Two SON faculty members are nursing research facilitators, one at CCHS (Dr. Bucher) and one at Bayhealth Medical Center (Dr. Schell). Their goals are to mentor novice nurse researchers and to develop practice-based research programs within these centers. These research facilitators as well as other SON faculty serve on research-related committees/councils, e.g. IRB, Research Review Committee, Research Education Committee, Clinical Research Committee and Nursing Leadership Research Committee. They also serve as principal investigators on various nursing studies.

Within the various affiliate partnerships described, the SON offers a rich environment for collaborative research and grant funding. The addition of a PhD Program in Nursing Science with highly motivated and talented students will enhance these partnerships and the potential for collaborative research and grant funding.

### **3. Enrollment, Admissions, and Financial Aid**

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#### **3.1. Enrollment Limitations/Criteria**

The number of students accepted each year will depend upon available funding, faculty research, available space and faculty resources for advising. Based on resources and interest in the program, it is anticipated that a cohort of students will be admitted once each year. Full-time enrollment is preferred but part-time enrollment will be considered. The minimum and maximum number of students is projected to between 6 (minimum number for graduate courses per university policy) and 10 students per cohort.

#### **3.2. Admission Requirements/Criteria**

Admission to the PhD program is competitive. Those who meet stated minimum requirements are not guaranteed admission nor are those who fail to meet all of those requirements necessarily precluded from admission if they offer appropriate strengths.

Applicants will adhere to the University's Office of Graduate Studies procedures using the online admission process accessible at <http://www.udel.edu/gradoffice/apply/>

Admission decisions will be made by the PhD Program Committee of the School of Nursing (SON). Students will be admitted to the program based on enrollment availability, identification of an appropriate and available committee advisor and their ability to meet the following minimum recommended entrance requirements:

- A baccalaureate in nursing degree from an accredited college or university
- A master's degree in nursing or other health related discipline, e.g. health care administration, from an accredited college or university
- A GRE score of 1050 on math and verbal sections combined. Scores should be forwarded to the University of Delaware (School Code 5811, Department Code 0619). GRE scores must be earned within the last 5 years.
- An undergraduate GPA of 3.0 or higher, a Master's Degree GPA of 3.5 or higher.
- A written statement of goals and objectives (the personal statement) that clearly identifies the applicant's research and curriculum interests and describes how admission to the program will facilitate his or her professional objectives. The statement should indicate how the applicant's research interest is consistent with the research expertise of the faculty.
- Three letters of recommendation from an academic, employer and/or other professional source who can address the scholarship potential of the applicant. All letters of recommendation will be submitted online per the Office of Graduate Studies admission policy. See <http://www.udel.edu/gradoffice/apply/> for details.
- Official results from the TOEFL or IELTS exam taken within the last 2 years (for non-native English speaking applicants only)
- Copy of active Registered Nurse (RN) license
- A curriculum vitae or resume
- An interview with PhD program coordinator is required prior to admission
- All students are also expected to demonstrate competence in oral and written communication.
- A critical writing sample is required. This sample should demonstrate the student's ability to critique and synthesize the literature on a specific topic related to his/her dissertation area of interest.
- Knowledge of statistics is expected. Completion of a statistics course in the past five years is strongly recommended. If students need to complete a statistics course to meet this requirement, but meet all other admission criteria, provisional admission may be granted with the condition that they enroll in an appropriate masters level statistics course before beginning PhD in Nursing Science coursework.

Admission Application Processing within the School of Nursing:

- Completed applications (application form, official transcripts and GRE scores, letters of recommendation, curriculum vitae/resume, statement of purpose and personal statement) will be reviewed by the PhD Program Committee in the SON.



- Pending a successful review of the initial application materials, the application is circulated to the SON faculty teaching in the PhD program in an effort to match the student with an advisor. Faculty members advise students whose background, goals and objectives are compatible with their own research and funding. The PhD Program Committee arrives at an admission decision after reviewing the completed application. To be admitted, a student must have an advisor.

### **3.3. Transfer Policy**

Graduate credit earned at another institution will be evaluated at the written request of the student. Such a request should be directed to the SON PhD Committee using a Request for Transfer of Graduate Credit form. A maximum of 9 credits required for the degree will be accepted provided that such credits:

- were earned with a grade of no less than B-
- are approved by the student's adviser and the SON Director
- are not older than five years, and
- were completed at an accredited college or university.

The credits, but not the grades or quality points, are transferable to University of Delaware graduate records. Graduate courses counted toward a degree received elsewhere may not be used. Credits earned at another institution while the student was classified as a continuing education student at that institution are not eligible to be transferred toward a graduate degree at the University of Delaware. Credits from institutions outside of the United States are generally not transferable to the University of Delaware.

### **3.4. Retention Policy**

Students are expected to complete the program in five years.

### **3.5. Student Expenses and Financial Aid**

#### **3.5.1. Extraordinary Expenses**

No extraordinary expenses are anticipated.

#### **3.5.2. Sources of Financial Support**

- Most students in the program will be supported by graduate research assistantships provided by external grants, through faculty advisors.
- The SON will apply for graduate student traineeships and students will be encouraged to compete for University and external fellowships. Fellowships, tuition scholarships, assistantships, and traineeships are awarded on the basis of merit from nominations by the department. Awards are granted to full-time students in good academic standing with regular status.

The university-wide application deadline for these merit-based awards is February

1st. Applicants are encouraged to apply early and contact the major instructional department for additional application information and for deadlines earlier than February 1st. The award is valid only for the term designated.

- Application for fellowship, tuition scholarship, or assistantship financial aid is a part of the admission application form and is made at the time of application. Electronic application is required using the web address: <http://www.udel.edu/grad/apply>. U.S. applicants are strongly encouraged to complete a FAFSA (Free Application for Federal Student Aid) form.

See **Appendix E** for examples of potential external funding. Some program grants may not be submitted until the PhD program is provisionally approved.

#### 4. Curriculum Specifics

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Nursing PhD curricula from major programs across the country were reviewed prior to determining the SON curriculum. Total credits ranged from 44 to 67 with a mean of 57 credits.

##### 4.1. Degrees Awarded

Doctor of Philosophy (PhD)

##### 4.2. Curriculum

The Doctor of Philosophy in Nursing Science requires 50 credits including 41 credits of graduate level coursework and 9 credits of dissertation. See Appendix E for proposed nursing courses with descriptions and objectives. All NURS courses will be developed (details can be found on the fall 2009 Course Inventory website). NURS 812 is a revision of a course taught previously. The coursework will be specified in the student's plan of study and must include the following:

<i>Core Courses (13 credits):</i>	<i>Credits</i>
NURS 810: Philosophical and Theoretical Basis of Nursing Science	3
NURS 833: Nurse Scientist Special Topics Seminar I	1
NURS 834: Nurse Scientist Special Topics Seminar II	1
NURS 835: Nurse Scientist Special Topics Seminar III	1
NURS 841: Philosophical and Theoretical Basis of Nursing Education	3
NURS 842: Nursing Higher Education: Structure, Processes, & Outcomes	3
NURS 850: Dissertation Proposal Seminar	1
 <i>Research/Methods/Analysis Courses (16 credits):</i>	
Statistics from ED, PSYCH, SOC	6
NURS 812: Responsible Conduct of Research	1
NURS 814: Advanced Quantitative Research in Nursing Science	3

NURS 816: Advanced Qualitative Research in Nursing Science	3
Research Methodology Course	3
(Offered by other departments, relevant to student's research focus)	

*Cognates (12 credits):*

Electives taken to build substantive knowledge in area of dissertation topic	12
Electives are intended to enhance and broaden the student's scholarly involvement, build and inter-professional team of advisors, and build toward successful completion of the dissertation.	

*Dissertation (9 credits):*

NURS 964: Pre-Candidacy Study	(3-12 until candidacy achieved)
NURS 969: Doctoral Dissertation	9

See **Appendix F** for Course Descriptions, Objectives, and Pre-/Co-Requisites

**Table 2    PhD in Nursing Science Sample Curriculum**

<u>Year 1 – Fall</u>	<u>Year 1- Spring</u>
NURS 810 (3)	NURS 816 (3)
NURS 812 (1)	NURS 833 (1)
NURS 814 (3)	Statistics II (3)
Statistics I (3)	Cognate (3)
 <u>Year 2 – Fall</u>	 <u>Year 2- Spring</u>
NURS 834 (1)	NURS 835 (1)
Research Methodology (3)	NURS 841 (3)
Cognate (3)	NURS 842 (3)
Cognate (3)	Cognate (3)
 End of Year 2 - Comprehensive Exam	
 <u>Year 3 – Fall</u>	 <u>Year 3- Spring</u>
NURS 850 (1)	NURS 969 Dissertation (3)
NURS 969 Dissertation (3)	
 <u>Year 4 – Fall</u>	 <u>Year 4 - Spring</u>
NURS 969 Dissertation (3)	NURS 999 Dissertation
	Sustaining
 <u>Year 5</u>	
NURS 999 Dissertation Sustaining	

### **4.3 Comprehensive Exams**

One written and one oral comprehensive examination will evaluate knowledge in three areas of content at completion of all course work. These areas include core course content, research methods and analysis, and area of cognate concentration. These examinations will be offered in October and March each year. Successful completion of the written examination is required prior to scheduling the oral defense. Students are required to pass comprehensive examinations. The results of this examination will be one of the following:

- Pass: Students may proceed to the next stage of their degree requirements.
- Conditional Pass: If the examination committee determines that the student's performance was generally acceptable but with a specific deficiency, condition(s) will be specified that the student must satisfy to achieve a pass and remain in the program. These conditions may include re-examination of one or more question areas.
- Re-examination: This result is appropriate for a student who performance was unsatisfactory but who displayed evidence of the potential to complete doctoral degree education. Re-examination must be completed within 6 months. The possible outcomes of this re-examination are pass or failure. The student may not take the exam a third time.
- Failure: This result indicates that the student is not capable of completing the requirements for the doctoral degree and the student would be recommended for dismissal from the program.

The advisor and Preliminary Examination Committee will determine on a case by case basis the composition of re-examinations.

Students will be required to identify faculty members to serve on their comprehensive examination committee with the assistance of the student's assigned academic advisor. The advisor will serve as chair of the examination committee. All other faculty members of examination committees must be approved by the student's academic advisor and the PhD in Nursing Science Program Committee. The committee will include representation of faculty members who have taught the required content areas being tested.

### **4.4 Dissertation Committee and Proposal**

#### **4.4.1 Dissertation chair and committee selection**

Students will select a dissertation chair upon approval of the academic advisor (who may be the same) and with approval of the PhD in Nursing Science Program Committee. The student and his/her dissertation chair will create a dissertation committee at the time the student begins to develop the dissertation proposal. The dissertation committee shall include at least three faculty members from within the PhD in Nursing Science program, and one member from outside of the SON program or outside the University. Individuals may be nationally recognized for their expertise in the content or methodology of the dissertation research. The PhD in Nursing Science Program Committee must approve dissertation committee members from outside of the School of Nursing and from outside the University. The dissertation chair must be a member of the

faculty in the PhD in Nursing Science program, and at least one of the committee members must be from outside the SON with the approval of the PhD in Nursing Science Program Committee. All PhD dissertation committee members must hold a doctoral degree.

#### 4.4.2 Defense of the dissertation proposal

A copy of the dissertation proposal must be available to faculty dissertation committee members at least two weeks in advance of the proposal defense. The dissertation proposal defense will be scheduled only after a majority of members of the dissertation committee have determined that a defense is appropriate. The dissertation proposal defense will be open to the public, and invitations will be sent to all College of Health Science (CHS) faculty and students at least one week prior to the defense date.

### 4.5 Candidacy

Upon the recommendation of the doctoral student's dissertation committee and the School of Nursing Director, students may be admitted to candidacy for the PhD degree. The stipulations for admission to doctoral candidacy are that the student has (1) had a program of study approved, (2) completed one academic year of full-time graduate study in residence at the University, and (3) had a dissertation proposal accepted by the dissertation committee. The deadline for admission to candidacy for the fall semester is August 31. The deadline for admission to candidacy for the spring semester is January 31. The deadline for admission to candidacy for the summer is April 30. Responsibility for seeing that admission to candidacy is secured at the proper time rests with the student.

### 4.6 Defense of the Dissertation

The format of the dissertation must adhere to guidelines specified in the University's Thesis and Dissertation Manual. The manual is available electronically on the Web at <http://dspace.udel.edu:8080/dspace/bitstream/19716/3254/11/08-09GradIntro.pdf>

The dissertation defense will be scheduled only after the dissertation chair has determined that a defense is appropriate. The dissertation defense will be open to the public, and invitations will be sent to all College of Health Sciences (CHS) faculty and students at least two weeks prior the defense date. A copy of the dissertation must be made available to faculty dissertation committee members at least two weeks prior to the dissertation defense. The dissertation is expected to reflect the results of original and significant research written in a scholarly and literate manner worthy of publication. The dissertation must be approved by the dissertation chair, the CHS Dean, the Director of the SON, and the Associate Provost for Graduate and Professional Education.

### 4.7 Consequences for Failure to Make Satisfactory Progress

- 4.7.1 Students should progress to degree completion within 5 years. Students who fail to progress in course work as planned will be notified in writing of their progress by the chair of the PhD in Nursing Science Program Committee. Students are

required to submit a written revised plan to continue in their approved plan of study. This revised plan must be approved by the PhD in Nursing Science Program Committee. Each student will be evaluated on an individual basis for extenuating circumstances influencing their progress toward degree completion.

- 4.7.2 Students who fail the comprehensive examination, dissertation proposal defense, or dissertation defense will receive one additional opportunity to repeat the process and defend a new or modified examination, dissertation proposal, or dissertation within 6 months.

## **5. Resources Available**

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### **5.1. Learning Resources**

The PhD in Nursing Science program will be supported by excellent print and electronic resources available for nursing and healthcare through various sources across campus including the Morris Library, Center for Teaching Effectiveness, the Research Office, and Information Technology. An overview of available library resources are listed

at: <http://www2.lib.udel.edu/subj/nurs/>. In summary, they include nursing and other multidisciplinary databases, electronic journals for nursing and clinical medicine, along with various other internet resources. Furthermore, students who continue to work in a healthcare setting during the program will often have free access to the services of their facility's medical library. A letter from the Director of Libraries verifying support is included in **Appendix G**.

The Center for Teaching Effectiveness (CTE): <http://cte.udel.edu/> promotes the enhancement of learning and teaching at the University with individual and group support for innovation in teaching and learning. This support includes a conference specific to graduate level teaching assistants as well as other offerings such as vita and resume preparation.

Various computing and technology resources are available in both the School of Nursing and university-wide. For example, the Office of Educational Technology: <http://home.oet.udel.edu/> at 113 Pearson Hall provides various educational technology support including resources for distance learning. Academic Technology Services (ATS), a new group within Information Technologies, will be incorporating the operations of PRESENT from User Services along with Instructional Television and Digital Media from University Media Services. ATS will bring together outstanding IT resources and support for teaching, presentations, instructional technology development projects, and a faculty community of practice. The new home for ATS is located on the second floor of East Hall: <http://www.ats.udel.edu/>.

The mission of the UD Research Office <http://www.udel.edu/research/about/index.html> is to advance high-quality research and scholarship and to support the education of graduate students through challenging academics and the conduct of peer-reviewed, publishable research. The Office of Graduate and Professional Education partners with the Writing Program to offer Dissertation Bootcamp, an intensive workshop (4 hours/day for 2 weeks) for PhD students who are writing their first dissertation chapters or have found their writing progress stalled. In addition to writing time, the workshop includes brief discussions of topics of common interest to

dissertation students such as goal setting, time management, and the writing habits of successful and prolific academic writers.

## **5.2. Faculty Administrative Resources**

The program resides in the School of Nursing in the College of Health Sciences. The SON faculty has voted to support the program and a letter from the director is included in **Appendix H** indicating strong support for the program. The Dean of the College of Health Sciences enthusiastically supports the development of this program. See letter in **Appendix I**.

The program will be administered by the Director of the School of Nursing with assistance of the School of Nursing's Assistant Director and the Coordinator of the PhD in Nursing Science program. Initially, a PhD Program Coordinator and a PhD Program Committee will be appointed by the SON Director with approval of the College of Health Sciences Dean. The program coordinator will have previous experience teaching doctoral students and chairing dissertation committees. Thereafter, SON bylaws will require that Program Committee members are elected. The Program Committee will be selected from Associate and Full Professors who have past experience in dissertation committees, scholarly projects/theses advisement, and have an active program of research. See **Appendix J** for the proposed changes to the SON Bylaws. The PhD in Nursing Science Program will be a subcommittee of the Graduate Education Committee, an existing committee. Faculty who have indicated that they are qualified and interested in teaching in and advising for the PhD program are listed in **Appendix K**.

## **5.3. External Funding**

As of November 4, 2009, four Federal (NIH, Tri-Services Research Program) research proposals are in review and two are funded: one US Administration on Aging sub-award (\$25,245 - 8/1/08-1/31/10) to SON investigator Rempusheski and one NIH/NCRR INBRE (Weir, PI) administrative supplement grant (\$598,614 - 9/3/09-9/2/11) to SON investigators Klemm and Rempusheski from NIH recovery funds. At least two additional Federal proposals are projected for submission or re-submission by SON investigators within the next six months.

## **6. Resources Required**

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### **6.1. Learning Resources**

No new learning resources are needed to implement the proposed program. There is adequate classroom space in McDowell Hall to hold class with doctoral students.

### **6.2. Faculty/Administrative Resources**

There are currently 688 undergraduate students and 162 Master's in Nursing students taught by 41 SON faculty. We are requesting 1 FTE on the following basis:

- Program Coordinator (0.5 FTE)
- New Courses (0.3 FTE) (assuming 9 new courses)
- Advising PhD students and guiding dissertations (0.2 FTE)

We are actively seeking a faculty hire who has experience in teaching doctoral students and who has a program of research and history of grant funding that, at least, partially supports doctoral students.

The SON has three administrative assistants but additional support will be needed (0.25 FTE) to coordinate processing of applications, scheduling visits of applicants, scheduling and providing logistics support for program committee meetings and meetings for dissertation defenses.

### **6.3. Budgeting Needs**

In addition to the faculty and administrative resources listed above, other support is needed to attract, recruit and support doctoral students. Eventually, it is anticipated that most graduate assistantships and fellowships will be funded by external research contracts and grants and from internal and external competitive graduate fellowship programs, such as pre-doctoral (F31) National Research Service Awards (NINR/NIH) and Hartford Foundation Pre-doctoral Fellowships. Faculty hired in the last 5 years have more extensive experience with grant writing and have graduated from PhD programs with a greater emphasis on a program of research. As the program becomes more established, the research direction of the SON will become more focused. Communication with the College of Health Sciences and University development offices, to identify scholarship and fellowship funding that is available to doctoral students in the health sciences, will be ongoing.

Research assistantships within SON faculty funded studies and funded teaching assistantships will be communicated to students upon admission to the PhD program and as they become available throughout the student's tenure in the program. Additional opportunities for research assistantships with investigators in the College of Health Sciences and throughout the University of Delaware and Delaware Health Sciences Alliance partner institutions will be presented and encouraged.

Within 5 years, we anticipate that faculty and student external funding will create a stable and stimulating scholarly environment of meeting teaching and research assistantship needs of doctoral students enrolled in the PhD in Nursing Science program.

## **7. Implementation Plan and Evaluation**

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Once the program is approved by the College of Health Sciences Curriculum Committee, the University Graduate Studies Committee and the Faculty Senate, and resources have been allocated, a PhD in Nursing Science Program Committee will be assembled and applications will be solicited for the 2011-2012 academic year. A PhD coordinator will be assigned to chair this committee. The deadline for application to the program will be January 15, 2011. The projected number of students for the first year of the program is six. Once the first PhD class graduates in 2017, and the program is evaluated in terms of outcomes and resource availability, a decision will be made about whether to increase the number of students to be admitted each year. However, prior to that year five evaluation, a maximum of six students will be admitted annually.



### **7.1. Evaluation Plan**

The SON Educational Assessment Committee provides support for maintaining and coordinating the processes for evaluation in collaboration with the PhD program committee. Both formative and summative methods will be used to assess achievement of program learning outcomes. The successful completion and oral defense of a doctoral dissertation is the culmination of all learning outcomes. Each course in the curriculum contributes to this final outcome. A curriculum map links each program learning outcome to the appropriate course. See **Appendix L** for the curriculum map. Each course will be evaluated by students after completion of said course. Course evaluation summaries identifying strengths, weaknesses, and suggested revisions will be completed annually by faculty. These summaries will be reviewed by the PhD Program Committee so that an overall evaluation of the curriculum takes place on an annual basis. The PhD Program Coordinator will communicate with faculty in those departments in which the doctoral students are taking statistics and/or cognate courses to assure relevance of content and resolution of any issues that may arise.

As a method of formative evaluation and benchmarking, each program outcome relative to the *American Association of Colleges of Nursing (AACN) Indicators of Quality in Research-Focused Doctoral Programs in Nursing* (AACN Position Statement on Nursing Research, March 2006) will be evaluated at least every five years (See **Appendix M** for AACN document). Additional methods for program evaluation include tracking graduation rates and years to completion of the PhD as well as exit and alumni surveys. The *AACN Indicators of Quality in Research-Focused Doctoral Programs in Nursing* will provide the framework for Exit Surveys to be distributed to students at the completion of the program. Alumni Surveys, based on the *AACN Indicators*, will be distributed 12 to 18 months after graduation and five years later. Review for permanent approval by the University Of Delaware Office Of Graduate Studies, Faculty Senate and the Board of Trustees will be scheduled for five years after the first class is enrolled.

**APPENDIX A**  
**University of Delaware**  
**School of Nursing**  
**PhD in Nursing Science Survey: August 2009 RESULTS**

**Data Collection:**

- On-line Qualtrics Survey Distribution: CCHS, Nemours/Alfred I. DuPont Hospital, Bayhealth Medical Center, University of Delaware SON undergraduate and graduate students, DTCC, Wilmington University
- Paper Distribution at Delaware Nurses Association Spring Conference April 2009
- April 2009- August 2009

**The Sample: n=322**

- age:
  - 20-29: 19% (n=62)
  - 30-39: 22% (n=71)
  - 40-49: 26% (n=83)
  - 50-59: 27% (n=86)
  - 60+: 6% (n=19)
- place of residence
  - Delaware 71% (n=227)
  - Pennsylvania 13% (n=42)
  - Maryland 11% (n=35)
  - NJ 5% (n=15)
  - Other: FLA (1), Puerto Rico (1)
- highest level of education:
  - diploma 3% (n=10)
  - ADN 13% (n=42)
  - BSN 41% (n=133)
  - MSN 34% (n=108)
  - Other: 16% (n=50)
    - Baccalaureate (BA/BS): 6
    - Master's (MBA/MPH/MSM/MA/MS): 14
    - Nurse Practitioner (certified): 2
    - Doctorate (PhD/EdD/DNP/ND): 6
    - School Nurse: 1
    - Pediatric Nurse Associate: 1
    - Students: BSN 3, MSN 8, doctoral 2
    - Some college: 1
- years in nursing: 16.09 ±11.33 mean years
- current position:

- hospital/acute care setting 83% (n=267)
  - school of nursing 8% (n=25)
  - clinic 7% (n=24)
  - home care/public health 1% (n=4)
  - other 9% (n=30)
    - corrections: 1
    - students/unemployed new graduate: 3
    - outpatient/ambulatory: 4
    - physician's office: 2
    - private practice/ primary care/family practice/consultant: 9
    - academia: 2
    - school nurse: 2
    - skilled care: 1
    - apnea coordinator: 1
  - clinical specialties: variety including pediatrics, psychiatric, medical-surgical, critical care, operating room, maternity, emergency, geriatrics, administration, progressive care, case manager, allergy nurse, nurse practitioners, women's health, bariatrics, staff development, faculty
- .....

**1. My career goals include obtaining my PhD in Nursing Science within 5 years.**

Strongly Agree or Agree: 29% (n=93)  
Neither Agree nor Disagree: 25% (n=82)  
Strongly Disagree or Disagree: 19% (n=61)

**2. I am interested in a University of Delaware PhD Program in Nursing Science.**

Strongly Agree or Agree: 46% (n=146)  
Neither Agree nor Disagree: 24% (n=76)  
Strongly Disagree or Disagree: 31% (n=99)

**3. My preference for learning is online.**

Strongly Agree or Agree: 54% (n=175)  
Neither Agree nor Disagree: 26% (n=84)  
Strongly Disagree or Disagree: 19% (n=63)

**4. My preference for learning is live in the classroom.**

Strongly Agree or Agree: 39% (n=124)  
Neither Agree nor Disagree: 38% (n=122)  
Strongly Disagree or Disagree: 24% (n=76)

**5. I will require funding to attend a PhD program.**

Strongly Agree or Agree:	82%	(n=169)
Neither Agree nor Disagree:	12%	(n=38)
Strongly Disagree or Disagree:	6%	(n=20)

**6. I am interested in full-time studies.**

Strongly Agree or Agree:	7%	(n=5)
Neither Agree nor Disagree:	18%	(n=59)
Strongly Disagree or Disagree:	75%	(n=231)

**7. I am interested in part-time studies.**

Strongly Agree or Agree:	75%	(n=240)
Neither Agree nor Disagree:	16%	(n=52)
Strongly Disagree or Disagree:	9%	(n=28)

**8. I am interested in summer studies.**

Strongly Agree or Agree:	58%	(n=285)
Neither Agree nor Disagree:	23%	(n=74)
Strongly Disagree or Disagree:	20%	(n=62)

**9. My professional goal is to be a researcher.**

Strongly Agree or Agree:	14%	(n=42)
Neither Agree nor Disagree:	31%	(n=98)
Strongly Disagree or Disagree:	57%	(n=179)

**10. My professional goal is to be a university professor.**

Strongly Agree or Agree:	16%	(n=50)
Neither Agree nor Disagree:	25%	(n=80)
Strongly Disagree or Disagree:	37%	(n=120)

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**PhD Program Interest Survey – Summary of Comments (survey item 17)**

**1. Urgency/Waiting For It (8 comments)**

- Should have happened a long time ago – what took you so long?
- Start it soon (2 comments)
- It's about time!
- Hurry up!
- Should have had this program in place years ago

- I am very excited to hear that this might become a reality!! I am UD alum and have waited for this for YEARS!!! Thank you!!
- Long overdue for DE

2. **Great Idea** (21 comments)

- Go for it!
- Terrific/good idea (4 comments)
- I think it is a wonderful idea.
- It would be a wonderful opportunity.
- I am very pleased you are offering it.
- I think it would be wonderful to have one. I went to U of D for my first degree and have wonderful memories of it.
- I obtained my BSN at UD and am looking into obtaining a Master's. It would be wonderful to be able to continue on to a PhD there!
- Would be quite useful to address initiatives toward advanced nursing practice; I chose an educational doctorate because my closest option at UD was in IFST
- ...if I were younger I'd go for it at Delaware. You should go for it. It's a wonderful school and I loved my experiences there.
- I think it would be a great idea to provide a PhD program at the University. I know I am considering furthering my education some day and having a program that is close and with such a reputable school would be a first choice.
- I think there is a great and untapped interest in the doctoral level of education for nursing here in Delaware. I hope that this is possible sooner than later. This survey makes me very hopeful! Thanks!
- Would be a good addition of the state of DE
- I think it is a great opportunity to offer to nurses who want to obtain a PhD and live in DE, MD, PA
- I really hope that you do institute it. I received my undergrad degree from U of D and am currently pursuing my MSN from U of D. If UD offers PhD I would probably go on but probably will not if it requires me traveling to Philly or Baltimore.
- Very much needed for those interested in teaching or research.
- I think it's a good idea to have a local program. I don't feel like I'd be interested at all although I do like research and could see doing more and that's hard with a full time job.
- More interested in PhD than DNP
- Research courses are of interest to me even though I don't have a professional goal of becoming a research nurse.

3. **Seeking Information** (6 comments)

- I look forward to seeing the program after it is designed.
- Would like to know further details/ more info about a PhD nursing program (2 comments).
- Would be interested to see how the program is setup.
- Would like info. ( 2 comments)

**4. Ready to start a program (7 comments)**

- This would be a great opportunity for me...I have been looking at PhD programs for the last five years...I look forward to receiving more information about this opportunity.
- I am very interested in this program. I have been researching programs in the last couple months and hope to start a program in the next year.
- I would absolutely jump at the opportunity to attend. My BSN and MSN are from UD and I feel the programs are well respected and I recommend UD to all nursing students.
- I would definitely apply to the PhD program. I went here for my undergraduate and now my master's.
- I have currently been researching PhD programs and would be interested in attending a PhD program at the U of DE.
- I have been waiting for 6-8 years to begin this program. I am so excited; at my age, I want to start right away. I have many years of nursing leadership and bedside nursing and now in the NP role of nursing practice. I can't wait to start the courses. I would love to be taking any prerequisite classes at this time.
- Please please please, waiting 5 years for this.

**5. Preference for Learning Mode/Easy Logistics/Financial Concerns: (19 comments)**

- Please have a true class and not just online. It is difficult for all to be engaged with online courses only.
- I would love to have an on-line program. (2 comments)
- I attended an MSN program on-line and it worked out great- especially having a family
- On line offerings would improve the possibility a lot.
- I would do a PhD program at U of DE once I received my MSN if they allowed part time studies with a mix of online and classroom classes.
- Flexibility is key!
- Obviously, ease, availability and costs of the program would be important
- Would create a program that takes into account that student probably has full time commitment with job/home life.
- It needs to allow for part time study, unlike U of Penn's program.
- The application process needs to be uncomplicated.
- Would love to further my career but due to tuition cost I am unable to take more than one class (possibly two) per year which will take me too long to complete
- Feel part-time study and direct resourcing by experienced researchers is very important
- I am interested in part time program that I could manage while working full time.
- Will the program be offered at a part time option?
- Will you have a summer only option for those who may currently teach full time during the academic year?
- Will you need to take the GRE?
- I would also be interested in any scholarship/tuition assistance that could be offered.
- I would like to know if there would be financial aid available. There are some schools in PA, the pay full tuition for full time enrollment into their PhD nursing programs and provide a stipend. This is attractive but there is a geographic barrier. I would prefer U of D because of its reputation and proximity to home.
- Cost per credit?
- Scholarship for adult students?

- Please consider downstate opportunities.
6. **Suggestions for Variations on the Program** (9 comments)
- Process by which to proceed from BSN to PhD
  - Would be nice to have BSN to PhD program
  - Would the program be available to go from BSN to PhD or MSN to PhD only, something to think about.
  - I would like a combined MSN/PhD program
  - Would try to accommodate all components (research, education, clinical) into one program to allow diversity for future employment opportunities
  - An emphasis on clinical studies would be nice.
  - Will the PhD be geared to nursing education or research or both?
  - Clinical or research?
  - UD and Christiana would be perfect partners for this.
  - Do you have a pediatric program?
7. **Not Certain of Type of Doctoral Degree** (6 comments)
- Do you plan a DNP as well?
  - Interested in DNP
  - Need Doctorate of NP program
  - Will the final degree be a PhD, a DNSc, or a DNP?
  - Are there other types of PhDs offered in nursing?
  - Very interested – either a DNS or DNP
8. **Less Supportive Comments** (9 comments)
- What is the incentive for receiving a PhD? Will there be an increase in hourly rates? Will there be opportunity to apply and receive a non-traditional/non-bedside nursing position, one in which having a PhD would serve useful?
  - Salary/compensation does not reflect sacrifice and effort put forth to obtain degree
  - We need a commitment from nurses to get their MSNs before you ask those with advanced degrees to require a PhD
  - Being out of state, U of D is not generally an option for me.
  - Not necessary, need more MSN programs.
  - I attended as an undergraduate; however, I would attend another institution for an advanced degree as every institution has its strong points and weak points and to stay at one place it to risk continuing the weak points.
  - I hope they are more receptive to the mature student than the MS program was. I felt quite beaten up by the master's process.
  - I received my BSN and MSN at UD. Heard is better to get another degree from a different university for varied perspective.
  - Concerned about amount of clinical hours required.

**APPENDIX B  
SUPPORT LETTERS FROM  
DEPARTMENTS  
OUTSIDE OF SCHOOL OF NURSING**





COLLEGE OF EDUCATION & PUBLIC POLICY

OFFICE OF THE DEAN

Alison Hall West  
University of Delaware  
Newark, Delaware 19716-7301  
Ph: 302/831-2394  
Fax: 302/831-4605

October 22, 2009

To: Kenneth P. Miller, Director  
School of Nursing  
College of Health Sciences

From: Michael Gamel-McCormick, Dean   
College of Education and Public Policy

Re: Support for Measurement, Statistics and Research Methods Courses for Proposed Ph.D. in Nursing Science

Thank you for your request regarding the proposed Ph.D. in nursing and requesting that measurement and statistics and research methods courses from the College of Education and Public Policy be made available to graduate students who would be enrolled in the prospective program.

After asking advice from the director of the School of Education, Kathy Minke and the chair of the Department of Human Development and Family Studies, Donald Unger, and their respective faculties, I am happy to support the inclusion of the following courses as possible measurement and statistics options and research methods options for participants in the Ph.D. in Nursing Science program:

EDUC 812: Regression and Structural Equation Modeling  
EDUC 856: Introduction to Statistical Inference  
EDUC 872: Advanced Educational Measurement  
EDUC 862: Design and Analysis of Experiments  
EDUC 865: Educational Measurement Theory  
EDUC 874: Applied Multivariate Analysis  
HDFS 615: Research Methods  
HDFS 815: Research Issues and Design

We are happy to support this type of cross-college programming and wish you the best in the development of this degree.

cc: Nancy Brickhouse, Deputy Dean, College of Education and Public Policy  
Kathy Minke, Director, School of Education  
Gail Rys, Associate Director, School of Education  
Donald Unger, Chair, Department of Human Development and Family Studies  
Bahira Sherif Trask, Associate Chair, Department of Human Development and Family Studies

AN EQUAL OPPORTUNITY UNIVERSITY

**From:** Andrews, Rick [andrewsr@lerner.udel.edu]  
**Sent:** Wednesday, October 21, 2009 10:40 AM  
**To:** kpmiller@UDel.Edu  
**Subject:** RE: Gempesaw StatsCourses.Permission.PhDNursSci.10.20.09-1

Dr. Miller,

The Department of Business Administration would be delighted to welcome your PhD students into our graduate statistics course, BUAD820 (note the title of this course is being changed to Statistical Data Analysis for Business). The course is offered every Fall and Spring, and sometimes during Summer as well.

Please let me know if I can be of assistance.

Regards,  
Rick Andrews

---

Dr. Rick L. Andrews  
Deputy Dean, Lerner College of Business & Economics Chair, Department of Business  
Administration Professor of Marketing University of Delaware Newark, DE 19716  
Phone: (302) 831-1190  
Fax: (302) 831-4196  
Website: <http://www.buec.udel.edu/andrews/>

-----Original Message-----

From: Kenneth Miller, Phd [mailto:kpmiller@UDel.Edu]  
Sent: Wednesday, October 21, 2009 9:44 AM  
To: gempesaw@UDel.Edu  
Subject: Gempesaw StatsCourses.Permission.PhDNursSci.10.20.09-1

Bobby,

Good morning. I am writing to request a letter of support for the School of Nursing proposal for a PhD in Nursing Science. I have attached a request letter detailing the support needed as well as a sample curriculum. If you have any questions, please do not hesitate to contact me. Thanks.

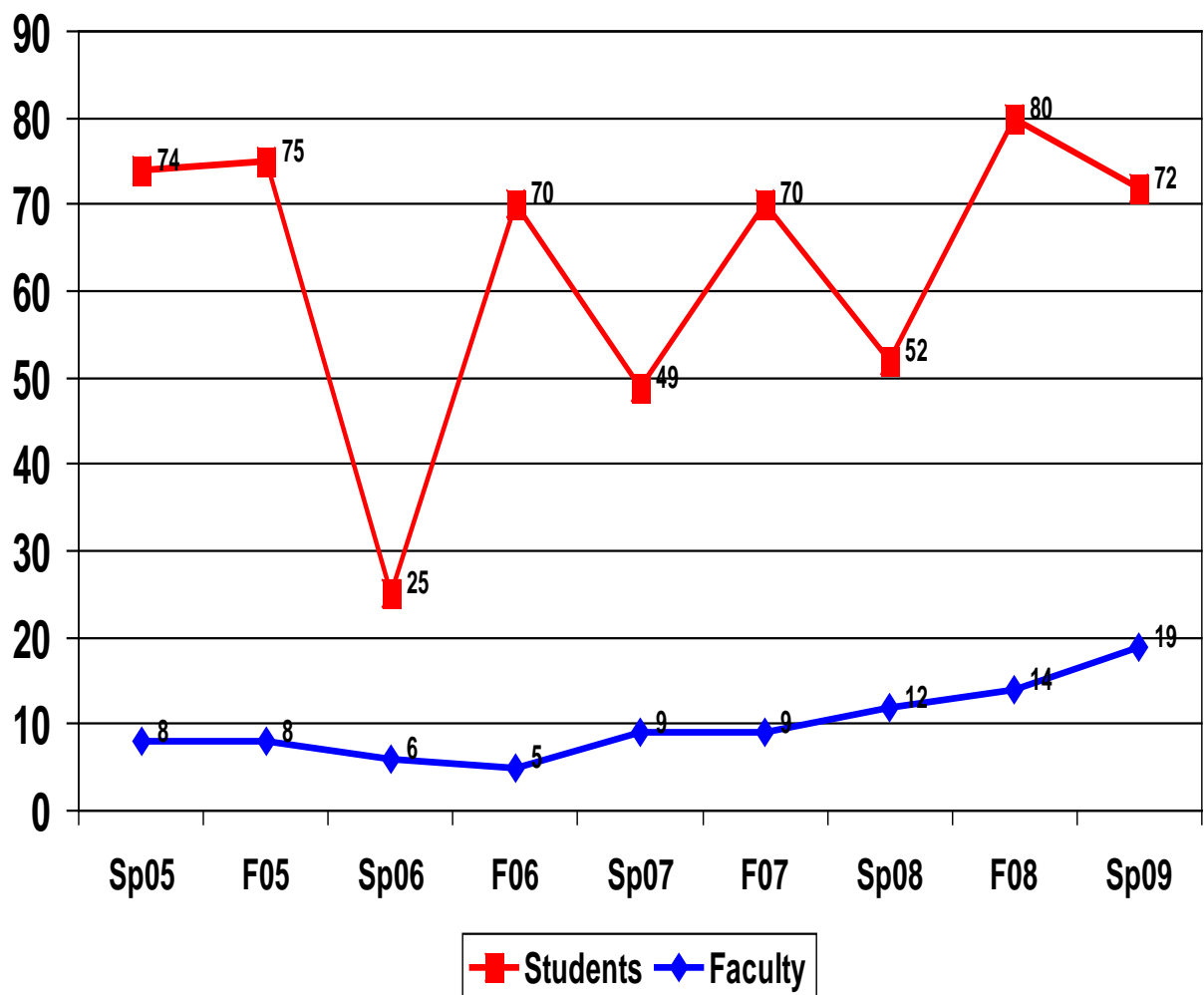
Ken

--

Ken Miller, PhD, RN, CFNP, FAAN,  
Director, School of Nursing  
University of Delaware  
College of Health Sciences  
391 McDowell Hall  
North College Avenue  
Newark, DE 19716  
Phone: (302) 831-0655  
Fax: (302) 831-2382

## APPENDIX C

**Number of Students and Faculty Mentors Participating in Delaware INBRE Undergraduate Research Experience in a 3-Credit, 14-week semester research course, by semester and year, 2005-2009 University of Delaware School of Nursing**



## APPENDIX D

**Grants Obtained or Under Review in the School of Nursing 2004-2009**

<b>Research Focus: Health Promotion &amp; Risk Reduction Across the Life Span</b>			
<b>Faculty</b>	<b>Funding Source</b>	<b>Title</b>	<b>Date</b>
Hayes, E.	American Nurses Foundation	Online Support for Informal Caregivers: Psychosocial Outcomes	2008 - 2010
	American Lung Association of Delaware	Peer Art: Dissemination of Anti-Smoking Messages I, II	11/2008-6/2010
	American Lung Association of Delaware	The Buddy System: A Strategy for Smoking Cessation	11/2004-5/2006
Herrman, J.	NIH	A Youth-Focused Approach to the Prevention of Teen Dating Violence	submitted 9/2009
	Sigma Theta Tau International	Young Women Get Real: A Pilot Program to Promote Healthy Sexual Behaviors Among Girls in Juvenile Justice	2008
	Sigma Theta Tau - Beta Xi Chapter	Thoughts on Teen Parenting: Kent and Sussex Counties	2008
	GUR	Survey on Adolescent Perceptions of Teen Births and Their Thoughts on Prevention	2007
	CRD	Validation of survey on Teens' perception of adolescent births	2006
	Alliance for Adolescent Pregnancy Prevention	Teens' Perceptions of Adolescent Births: Survey Development	2006
	DPH/Delaware	Teens' Perceptions of the Consequences of Teen births in Delaware	2006
Johnson, A.	UDRF	Effect of Skin to Skin Holding on Maternal Breast Milk Caloric Composition	2005
	UDCAP	Effect of Kangaroo Holding on Maternal Breast Milk Production	2004
Rempusheski, V (UD appointm't 9/1/06) <sup>§</sup>	Federal TriServices Nursing Research Program	Why We Stay: A Qualitative Investigation of Army Nurse Corps Retention and Intent to Stay	submitted 11/4/09
	NCRR/NIH	INBRE Administrative Supplement for Collaborative Community Engagement Research	9/3/09-9/2/11
	US Administration on Aging/Jewish Family Services of DE	Support for Independent Living and a Vital Energetic Retirement (SILVER)	8/1/08-1/31/10
	NCRR/NIH	Delaware IDeA Networks of Biomedical Research Excellence (Delaware INBRE) [SON PI]	9/1/06-4/30/09
Selway, J. (UD appointm't 9/1/07) <sup>§</sup>	UD GUR	Predictors of Poor Driving Records and Motor Vehicle Crashes Among Older Trauma Victims in Maryland	2009-10

<sup>§</sup> Dates of tenure track faculty appointments included for SON hires since 2005 since culture within the School of Nursing was shifting from one focused on education to a focus on research.

### **School of Nursing Grants 2004-2009 (continued)**

<b>Research Focus: Health Systems Management, Policy &amp; Education †</b>			
<b>Faculty</b>	<b>Funding Source</b>	<b>Title</b>	<b>Date</b>
Avino, K.	Sigma Theta Tau International/National League for Nursing	Integrating Holistic Nursing and Complementary and Alternative Medicine (CAM) into Delaware Schools of Nursing	2007
Hall-Long, B.	NIH-NICHD-NCS	National Children's Study	10/1/07-9/30/12
	USDHHS, HRSA	Promoting Healthy Lifestyles	2001-2004
Wade, G.	Sigma Theta Tau International	Factors Influencing Professional Nursing Practice and Job Enjoyment	6/1/05-5/31/06
	DPH/Delaware	Feasibility Study of Training Needs of Injury Prevention Practitioners	10/15/03 - 9/30/04

† Newly hired faculty in this focus area.

<b>Research Focus: Management of Chronic Conditions</b>			
<b>Faculty</b>	<b>Funding Source</b>	<b>Title</b>	<b>Date</b>
Adams, M. (UD appointm't 9/1/05) <sup>§</sup>	Delaware INBRE - NCRR/NIH	An Exploration of the Genetic Basis for Premenstrual Syndrome	5/1/07-4/30/09
	GUR	Exercise for Fitness: Looking at midlife and older women	2007
Brewer-Smyth, K.	Delaware INBRE - NCRR/NIH	Neurological and Neuropsychological Correlates of HIV Risk in Female Prison Inmates	7/1/04 - 6/30/05
	UDRF	Neuro-Cognitive Function and HIV Risk in Female Prison Inmates	6/1/04 - 6/1/07
	GUR	Neuro-Cognitive Function and HIV Risk in Female Prison Inmates	6/1/04 - 5/1/05
	UDRF	Neuro-Cognitive Function and HIV Risk in Female Prison Inmates	6/1/05 - 8/31/05
Brown, C. (UD appointm't 9/1/08) <sup>§</sup>	Federal TriServices Nursing Research Program	Why We Stay: A Qualitative Investigation of Army Nurse Corps Retention and Intent to Stay	submitted 11/4/09
	NIH	Exploring Symptom Clusters in Patients with Cancer	submitted 9/2009
	UDRF	Effect of an Oral Care Protocol on Oral Mucositis in Patients with Head and Neck Cancer Treated with Radiotherapy	2009 - 2010
	Oncology Nursing Society	The Lived Experience of Oral Mucositis in Head and Neck Cancer Patients Treated with Radiation	2008 - 2010

<sup>§</sup> Dates of tenure track faculty appointments included for SON hires since 2005 since culture within the School of Nursing was shifting from one focused on education to a focus on research.

**School of Nursing Grants 2004-2009 (continued)**

<b>Research Focus: Management of Chronic Conditions</b>			
<b>Faculty</b>	<b>Funding Source</b>	<b>Title</b>	<b>Date</b>
Bucher, L.	Southeastern Pennsylvania (SePA) Chapter of the American Association of Critical-Care Nurses (AACN)	A Clinical Comparison of the Rectal Trumpet and Fecal Collector in Acutely Ill Patients with Fecal Incontinence	2005
	SePA AACN	Implementation of a Hospital-Wide Guided Imagery Program	2005
Klemm, P.	NCRR/NIH	INBRE Administrative Supplement for Collaborative Community Engagement Research	2009 - 2011
	American Nurses Foundation	Online Support for Informal Caregivers: Psychosocial Outcomes	2008 - 2010
	Sigma Theta Tau International/Oncology Nursing Society	Psychosocial Outcomes in Online Cancer Support Groups	2005 - 2009
	Association of Operating Room Nurses	Identifying Perioperative Heart Failure Patient at Increased Risk for Adverse Outcomes after CABG	2005 - 2006
	Sigma Theta Tau/Nu Beta Chapter	Psychosocial Outcomes in Online Cancer Support Groups	2004 - 2005
Polek, C.	Rehabilitation Nursing Foundation	Examining Adherence to Antithrombotic Therapy: A Telephone Intervention	2004
Pretzer-Aboff, I. (UD appointm't 9/1/07) <sup>§</sup>	NIH	Efficacy Beliefs, Depression and Treadmill Training Outcomes in Stroke Survivors	submitted 10/2009
	NIH	Testing Restorative Care for People with Parkinson's Disease	submitted 9/2009
	UD Cross-College Cluster in Aging Initiative	Testing the Utility of a Portable Balance Plate in Persons with Parkinson's Disease	11/15/08 -
	Delaware INBRE - NCRR/NIH	Short-term Effectiveness of Res-Care-PD Intervention for Older Adults with Parkinson's disease and their Caregivers	5/1/08-4/30/09
Riley-Lawless, K. (UD appointm't 9/1/05) <sup>§</sup>	Delaware INBRE - NCRR/NIH	Promoting Family Management when a Child has a Chronic Condition	5/1/06-4/30/08

<sup>§</sup> Dates of tenure track faculty appointments included for SON hires since 2005 since culture within the School of Nursing was shifting from one focused on education to a focus on research.

**School of Nursing Grants 2004-2009 (continued)**

<b>Research Focus: Management of Chronic Conditions</b>			
<b>Faculty</b>	<b>Funding Source</b>	<b>Title</b>	<b>Date</b>
Schell, K.	UDRF	Anatomical Determinants of Forearm and Upper Arm Oscillometric Blood Pressure Differences	6/1/07 - 6/30/10
	AACN	Clinical Comparison of Forearm and Upper Arm Automatic Non-Invasive Blood Pressures in Critically Ill Adults	2006
	CHS - CRD	The Effect of Anatomical Structures on Adult Forearm and Upper Arm Automatic Non-Invasive Blood Pressure Measurement	2005
	Delaware INBRE - NCRR/NIH	Accuracy of Blood Pressure Measurement	7/1/05-4/30/07
	GUR	A Delphi Study of Innovative Teaching in Baccalaureate Nursing Education	2004
	AACN/Southeastern Chapter	A Clinical Comparison of Forearm and Upper Arm Automatic Non-Invasive Blood Pressure	2004
Voelmeck, W. (UD appointm't 9/1/06) <sup>§</sup>	UD GUR	Relationship of Illness Perception and Self-Care Behaviors of Individuals with Heart Failure to Performance of Daily Weight	2007-08
Wheeler, E.	Delaware INBRE - NCRR/NIH	SON Outreach Program/Undergraduate Research Experiences	7/1/04-4/30/09

<sup>§</sup> Dates of tenure track faculty appointments included for SON hires since 2005 since culture within the School of Nursing was shifting from one focused on education to a focus on research.

## APPENDIX E

### Potential Funding for PhD in Nursing Science Program

**American Academy of Nursing Building Academic Geriatric Nursing Capacity (BAGNC) Predoctoral Scholarship Program** (with support from the John A. Hartford Foundation of New York City and the Atlantic Philanthropies) for registered nurses who hold degrees(s) in nursing and are US citizens or permanent U.S. residents, committed to careers in academic geriatric nursing. **Award Information:** two-year awards are for up to \$100,000 (\$50,000/year). Support will go to tuition and fees and up to \$30,000 in stipend for each of two years for a total of up to \$50,000 per year. <http://www.geriatricnursing.org/applications/predoc-scholarship.asp>

**American Association for the Colleges of Nursing**  
<http://www.aacn.nche.edu/Education/financialaid.htm> lists many opportunities

**American Cancer Society**  
Doctoral Degree Scholarships in Cancer Nursing [http://www.cancer.org/docroot/RES/content/RES\\_5\\_2x\\_Doctoral\\_Degree\\_Scholarships\\_in\\_Cancer\\_Nursing.asp?sitearea=RES](http://www.cancer.org/docroot/RES/content/RES_5_2x_Doctoral_Degree_Scholarships_in_Cancer_Nursing.asp?sitearea=RES)

**Ford Foundation Predoctoral Fellowships for Achieving Excellence in College and University Teaching**  
<http://www7.nationalacademies.org/fordfellowships/fordpredoc.html>

**Health Resources & Services Administration (HRSA) Advanced Nursing Traineeships** <https://grants.hrsa.gov/webExternal/FundingOppDetails.asp?FundingCycleId=5228B8B5-956B-4CF8-99C2-CB852A8CB004&ViewMode=EU&GoBack=&PrintMode=&OnlineAvailabilityFlag=&pageNumber=&version=&NC=&Popup=>

**National Institute of Nursing Research**  
Ruth L. Kirschstein National Research Service Award (NRSA) for Individual Predoctoral Fellows in Nursing Research (F31)  
Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships (F31) to Promote Diversity in Health-Related Research (F31)  
<http://www.ninr.nih.gov/ResearchAndFunding/DEA/OEP/FundingOpportunities/PAs>

**Oncology Nursing Society (various grants and doctoral scholarship)**  
<http://www.ons.org/Awards/FoundationAwards/MajorGrants>  
<http://www.ons.org/Awards/FoundationAwards/Doctoral>

**Sigma Theta Tau International (various grants)**  
[http://www.nursingsociety.org/Research/SmallGrants/Pages/grants\\_small.aspx](http://www.nursingsociety.org/Research/SmallGrants/Pages/grants_small.aspx)

**The Nurse Faculty Loan Program** provides funds to eligible schools of nursing that offer advanced education nursing programs to prepare graduates to serve as faculty in a school of nursing. <http://www.hrsa.gov/grants/nflp/>

**TriService Nursing Research Program Predoctoral Award**  
<http://www.usuhs.mil/tsnrp/AboutTSNRP/howeare.php>



**APPENDIX F**  
**University of Delaware School of Nursing**  
**PhD in Nursing Science Program**  
**Proposed Nursing Courses with Descriptions and Objectives**

**NURS 810: Philosophical and Theoretical Basis of Nursing Science (3 credits)**

Course Description:

Critical analysis of the historical, theoretical and philosophical foundations of science in the evolution of knowledge development and inquiry in nursing science. Exploration and analysis of the development of middle-range theoretical structures and processes in nursing science and related health and social science theories relative to current and future trends in theory development. Topics include: epistemology and ontology, modern and post-modern philosophies, the evolution of science and inquiry, historical and contemporary empiricism, interpretive/hermeneutic, and critical feminist theory on the major paradigms and core assumptions guiding nursing science, and relevant health and social science theories. Middle-range theory development, application, testing, and evaluation emphasize strategies for using existing nursing and health related theories to foster development of new knowledge.

Course Objectives:

1. Appraise the impact of various epistemological and ontological positions on nursing knowledge.
2. Evaluate the tenets of modern and post-modern philosophies and the resultant effect on development of nursing knowledge.
3. Critique major paradigms and core assumptions associated with nursing science and related health and social science theories.
4. Predict relationships between early middle range theories and current and future trends in theory development.
5. Critically analyze the development, application, testing, and evaluation of a nursing or health related theory relevant to current area of scholarly focus.

PREREQUISITE: Admission to the doctoral program.



**NURS 812: Responsible Conduct of Research (1 credit)**

Course Description:

Critically examines scientific integrity and responsible conduct in biomedical, clinical and translational research within the theoretical and social context of research ethics using case examples and previous experience. Topics include: individual and institutional responsibilities for promoting scientific integrity, protection of the rights of researchers and human and animal subjects, data issues, collaboration, authorship practices, intellectual property, and impact of future developments in science.

Course Objectives:

1. Apply the theoretical and social context of research ethics to case examples of biomedical, clinical and translational research.
2. Analyze verbal, written and technological effectiveness in communicating responsible conduct in biomedical, clinical and translational research.
3. Apply the principles of the Belmont report to situations in which research context, setting, populations, culture and norms differ.
4. Critique research on research ethics and the responsible conduct of research.

PREREQUISITE: Admission to the doctoral program.



**NURS 814: Advanced Quantitative Research in Nursing Science (3 credits)**

Course Description:

In-depth analysis of quantitative research methodology within the context of research studies or existing data bases. This course provides practical experience in collecting, analyzing and interpreting quantitative data. Topics include: formulation of research questions and hypotheses that are supported by a critical review of the literature and conceptual or theoretical frameworks; examination of quantitative research designs, sampling strategies and sample size estimation; data collection methods and planning for data analysis.

Course Objectives:

1. Analyze the strengths and limitations of quantitative research designs used most frequently in nursing and health care research.
2. Critique research designs and data analytic strategies in published studies.
3. Compare methods of analysis and their applicability to specific research designs.
4. Formulate strategies for research implementation including the development of study timelines, subject recruitment and retention, data management plans and methods to assure data quality.
5. Develop a quantitative research proposal.

COREQUISITES: NURS 810, NURS 812, Doctoral Level Statistics Course



**NURS 816: Advanced Qualitative Research in Nursing Science (3 credits)**

Course Description:

The naturalistic paradigm and qualitative approaches, such as ethnography, phenomenology, grounded theory and/or others, are explored. The appropriateness of each approach for exploration, description and explanation of phenomena encountered in clinical, organizational and educational settings is emphasized. The outcome of this course is the development of a qualitative research proposal.

Course Objectives:

1. Explore qualitative research history, epistemology and methodologies and their relationship to nursing research and theory development.
2. Identify problems appropriate for scientific investigation using qualitative methodologies.
3. Critically analyze published qualitative nursing and health care research studies using appropriate criteria.
4. Identify potential ethical and scientific issues related to conducting qualitative nursing/health care research. Won't this be covered in the 1-credit course?
5. Use a qualitative approach in preparing a nursing/health care research proposal.

PREREQUISITES: NURS 810, NURS 812



**NURS 833: Nurse Scientist Special Topics Seminar I (1 credit)**

Course Description:

This course offers opportunities for doctoral students to share scholarly discourse with experts in nursing science, to develop their area of dissertation research, plan early grant submission, and incorporate behavior needed by the nurse scientist for engaging with the local and global scientific community. This course will emphasize scholarly discourse on current topics in nursing science and health-related research. This seminar will advance the enrolled students' knowledge of theoretical, methodological and practical aspects of research and grant writing. The responsibilities of the nurse scientist and academician will be integrated throughout the seminar.

Course Objectives:

1. Evaluate the role of the nurse scientist in various settings through scholarly discourse with nurse scientists.
2. Prepare a grant application to support preliminary work in the topic area of dissertation.

PREREQUISITE: Admission to the doctoral program.



**NURS 834: Nurse Scientist Special Topics Seminar II (1 credit)**

Course Description:

This course offers opportunities for doctoral students to share scholarly discourse with experts in nursing science, to develop their area of dissertation research, and to incorporate behavior needed by the nurse scientist for engaging with the local and global scientific community. This course will emphasize scholarly discourse on current topics in nursing science and health-related research. This seminar will advance the enrolled students' knowledge of theoretical, methodological and practical aspects of research and advance their ideas for dissertation. The

responsibilities of the nurse scientist and academician will be integrated throughout the seminar. This course builds upon work accomplished in NURS 833.

Course Objectives:

1. Evaluate the role of the nurse scientist in various settings through scholarly discourse with nurse scientists.
2. Refine theoretical background and research methodology for dissertation research.

PREREQUISITE: NURS 833 or special permission of instructor



**NURS 835: Nurse Scientist Special Topics Seminar III (1 credit)**

Course Description:

This course offers opportunities for doctoral students to share scholarly discourse with experts in nursing science, to develop their area of dissertation research, and to incorporate behavior needed by the nurse scientist for engaging with the local and global scientific community. This course will emphasize scholarly discourse on current topics in nursing science and health-related research. The seminar will advance the enrolled students' knowledge of theoretical, methodological and practical aspects of research and advance their ideas for dissertation. Includes strategies for promoting professional development and career trajectory planning. Facilitates the socialization process to the role of nursing scientist. This course builds upon work accomplished in NURS 834.

Course Objectives:

1. Evaluate the role of the nurse scientist in various settings through scholarly discourse with nurse scientists.
2. Develop a personal career trajectory that incorporates behavior needed by the nurse scientist for engaging with the local and global scientific community.

PREREQUISITE: NURS 834 or special permission of instructor



**NS 841: Philosophical and Theoretical Basis of Nursing Education (3 credits)**

Course Description:

Critical inquiry into major philosophical positions and associated educational theories relevant to nursing higher education. Ideas and historical roots which are relevant to contemporary issues in teaching nursing will be explored. Learners will evaluate theories of education used in educational research and develop an awareness of how and why philosophy and theory matters to education and teaching in schools of nursing.

Course Objectives:

1. Examine traditional philosophies of education, their assumptions and arguments.

2. Apply various educational theories, models and concepts to the process of learning.
3. Critically analyze educational research with varied underlying philosophies and theories.
4. Develop a personal, working philosophy of nursing education grounded in scientific evidence.

PREREQUISITE: NURS 810



### **NURS 842: Nursing Higher Education: Structure, Processes, and Outcomes (3 credits)**

#### Course Description:

An overview of structure and processes in systems of higher education in nursing, including but not limited to curriculum development, educational strategies and outcome evaluation of individual students, groups and programs.

#### Course Objectives:

1. Examine current issues and trends of curriculum development in nursing.
2. Analyze a variety of teaching and learning methods appropriate for emerging technologies, multimedia and targeted learner populations in higher education.
3. Develop process and outcome evaluations for students, peers and programs using various evaluation strategies.
4. Explore legal, ethical and socioeconomic considerations relevant to teaching in an academic setting.

PREREQUISITE: NURS 810

COREQUISITE: NURS 841



### **NURS 850: Dissertation Proposal Seminar (1 credit)**

#### Course Description:

Students evaluate and refine their dissertation proposal through interactions with peers and faculty. The seminar is facilitated by faculty involved with dissertation committees. Attention is given to University requirements and preparing students for dissertation proposal defense.

#### Course Objectives:

1. Evaluate and refine dissertation proposal.
2. Critically analyze research proposals written by other PhD nursing students using appropriate criteria.

PREREQUISITES: Successful completion of comprehensive exams. Completion of all other PhD course work.



**NURS 969: Dissertation (1-9 credits)**

Course Description:

After successful completion of a dissertation proposal defense, students will conduct the proposed research. The outcome of this course will be successful a dissertation defense.

# APPENDIX G

## SUPPORT LETTER

### UNIVERSITY LIBRARY SERVICES



UNIVERSITY OF  
DELAWARE LIBRARY

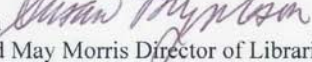
OFFICE OF THE VICE PROVOST AND  
MAY MORRIS DIRECTOR OF LIBRARIES

University of Delaware  
Newark, Delaware 19717-5267  
Phone: 302/831-2231  
Fax: 302/831-1046  
Library Web: [www.udel.edu/library](http://www.udel.edu/library)

October 23, 2009

Memorandum

To: Kenneth P. Miller  
Chairperson  
School of Nursing  
College of Health Sciences

From: Susan Brynteson   
Vice Provost and May Morris Director of Libraries

I am responding to the request to supply information about the capability of the University of Delaware Library to support the proposal to begin a Ph.D. degree in Nursing Science Program at the School of Nursing.

The University of Delaware Library is well able to support the Ph.D. degree in Nursing Science. Enclosed is a description of collections, resources and services available.

I would be pleased to respond to any questions.

SB/nb  
Enclosure

c: Kathleen Brewer-Smyth, Associate Professor, School of Nursing  
Lydia N. Collins, Assistant Librarian, Reference Department

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UNIVERSITY OF  
DELAWARE LIBRARY  
OFFICE OF THE VICE PROVOST AND  
MAY MORRIS DIRECTOR OF LIBRARIES

University of Delaware  
Newark, Delaware 19717-5267  
Phone: 302/831-2231  
Fax: 302/831-1046  
Library Web: [www.udel.edu/library](http://www.udel.edu/library)

October 23, 2009

Report on Library Services and Collections in Support of a  
Ph.D. degree in Nursing Science Program at the School of Nursing

General Description

The University of Delaware Library includes the Hugh M. Morris Library, where the main collection is housed; three branch libraries located on the Newark campus, the Agriculture Library, the Chemistry Library, and the Physics Library; and a fourth branch library, the Marine Studies Library, located in Lewes, Delaware. The Library collections parallel the University's academic interests and support all disciplines. In addition to collections which directly support the new degree proposal, the Library has strong collections in other areas that relate to the new degree proposal, such as Biology, Biotechnology, Chemistry, Medical Technology, Nutrition, Physical Therapy, Psychology and Sociology.

Books, periodicals, microforms, government publications, computer databases and other electronic resources, maps, manuscripts, and media provide a major academic resource for the University of Delaware, the surrounding community, the state of Delaware, and the nation. Library staff members provide a wide range of services, including reference assistance, circulation, interlibrary loan, instructional programs, and assistance to the visually impaired.

The University of Delaware Library is a U.S. depository library and a U.S. patent depository library and contains a complete file of every patent the U.S. Office of Patents and Trademarks has issued.

The online catalog, called DELCAT, provides access to millions of items by author, title, subject, and keyword.

Library collections number over 2,800,000. In 2008/2009, the Library Web [www.udel.edu/library/](http://www.udel.edu/library/) received over 1,600,000 virtual visits.

The University of Delaware Library is a member of the Association of Research Libraries, OCLC, the Center for Research Libraries, LYRASIS, CIRLA (The Chesapeake Information and Research Library Alliance), and NERL (NorthEast Research Libraries).

Specific Support for a Ph.D. degree in Nursing Science

Funds are designated at the beginning of each fiscal year for the support and strengthening of the collections including those related to Nursing. Support for a Ph.D. degree in Nursing Science Program is supplemented by funds used to purchase materials in the related areas noted previously as well as funds for the licensing of electronic resources.

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Kenneth P. Miller  
October 23, 2009  
Page 2

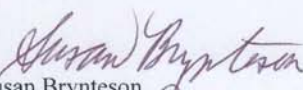
The Library subscribes to many print journals and electronic journals which support Nursing. A list of electronic journals by subject is available from the Library Web by clicking on "Electronic Journals" at the top of the main page <[www.udel.edulibrary/](http://www.udel.edulibrary/)>. In addition to various reference sources in print (see the "Research Guides" section of the Subject Guides for Nursing available under the section "Subject Guides A-Z" on the Library Web page), the Library also makes available several electronic databases which support Nursing, including CINAHL Plus with Full Text (Nursing and Allied Health), Health and Wellness Resource Center/Health Reference Center-Academic, Primal Pictures, PubMed, MEDLINE, TOXNET, CAB Abstracts, PsycINFO, and Science Citation Index Expanded.

In addition, the Library provides access to such important electronic databases as ABI/INFORM, American History and Life, ERIC (EBSCOHost), Expanded Academic ASAP Plus, LexisNexis Academic, LexisNexis Statistical Universe, MedlinePlus, New York Times (Historical), PAIS International, ProQuest Digital Dissertations and Theses (Dissertation Abstracts), SciFinder Scholar (Chemical Abstracts), Sociological Abstracts, STAT-USA, and Web of Science. Several databases incorporate the Library's major linking service, Get It, for electronic access to the full text of journal articles. Census information and other demographic data are available as is a wide range of printed and electronic reference sources.

The Library also subscribes to RefWorks, a Web-based bibliographic and database management system that can be used with most databases, and has just released a major new service, WorldCat Local, which provides access to a vast number of resources in libraries worldwide. The Library also maintains an Institutional Repository (see: <[dspace.udel.edu:8080/dspace/](http://dspace.udel.edu:8080/dspace/)>), which archives research reports and documents and other resources produced by University of Delaware faculty.

The Library has a strong collection of videotapes and films which cover a wide range of subjects which relate to Nursing. The video collection is heavily used; is increasing in size; and there has been much consultation about it by Francis Poole, Librarian and Head of the Instructional Media Collection Department, with Nursing faculty.

A professional librarian, Lydia N. Collins, Assistant Librarian in the Reference Department, serves as liaison to the faculty in the School of Nursing. Suggestions for purchases received by the Library for materials related to Nursing are directed to Ms. Collins, who also regularly consults faculty about priorities and the direction the collections should take. Ms. Collins is also available for instruction in the use of the Library for students and faculty. She maintains a subject Web site for Nursing which can be accessed from the Library Web <[www.udel.edu/library/](http://www.udel.edu/library/)> by clicking on "Subject Guides A to Z" or directly by the URL <[www2.lib.udel.edu/subj/nurs/](http://www2.lib.udel.edu/subj/nurs/)>.

  
Susan Brynteson  
Vice Provost and May Morris Director of Libraries

# APPENDIX H LETTER FROM SCHOOL OF NURSING DIRECTOR





SCHOOL OF NURSING

McDowell Hall  
University of Delaware  
Newark, Delaware 19716-3710  
Ph: 302/831-1253  
Fax: 302/831-2382  
E-mail: ud-nursing@udel.edu

30 October 2009

Faculty Senate  
University of Delaware  
Newark, DE 19716

Dear Faculty Senators:

It is with a great deal of enthusiasm that I write in support of the Doctorate in Nursing Science (PhD) that is being proposed by the School of Nursing. This new program is not only congruent with the Path to Prominence but is absolutely necessary to help alleviate the current nationwide shortage of educators and researchers; both of which are sentinel to our being able to move the School forward in its goal of becoming a competitive institution not only within the quad state area but at the national level as well.

The faculty (N=41) in the School of Nursing have voted 31 in favor of the program, 10 abstentions, and no negative votes. Additionally, we have the monetary resources to mount and to sustain the program. These factors contribute to the overwhelming support of the program both intra- as well as extramurally.

The development and initiation of this program will be a first for the state of Delaware. Other academic institutions have focused on the clinical doctorate, but none have been able to mount a research program. The will place the University of Delaware in the unique position of having the first Nursing PhD program in the state. Having this program will not only make us more competitive with our neighboring states but will have the potential to entice senior level faculty with programs of research to want to come to Delaware. It will also provide a ready source of research assistants for our faculty who are actively engaged in their own research projects. In short, the outcome of having a doctoral program in nursing will have a positive effect on the University, the College of Health Sciences, and the School of Nursing.

I ask each of you to support this proposed program with the same enthusiasm and acceptance that the School of Nursing faculty, and other Colleges and Departments across the campus have shown in their support of this endeavor. This program will be our contribution to the Path to Prominence. If you have any questions, please do not hesitate to contact me. Again, I thank you in advance for your support of this new program.

Sincerely,

A handwritten signature in cursive script that reads "Kenneth P. Miller / KAS".

Kenneth P. Miller, Ph.D., RN, CFNP, FAAN  
Professor and Director  
School of Nursing

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APPENDIX I  
SUPPORT LETTER  
DEAN of COLLEGE OF HEALTH  
SCIENCES



COLLEGE OF HEALTH SCIENCES

OFFICE OF THE DEAN

345 McDowell Hall  
University of Delaware  
Newark, Delaware 19716-3710  
Ph: 302/831-2381  
Fax: 302/831-3490  
www.udel.edu/health

**MEMORANDUM**

**DATE:** October 30, 2009

**TO:** Kenneth P. Miller  
Director, School of Nursing

**FROM:** Kathleen S. Matt *KSM/jrb*  
Dean, College of Health Sciences

**RE:** **Proposed Doctor of Philosophy in Nursing Science Program**

On behalf of the College of Health Sciences, I write to enthusiastically support the proposed Doctor of Philosophy in Nursing Science program in the School of Nursing. This proposed program builds on the 30-year tradition of excellence in education at the undergraduate and graduate level in the School of Nursing. The growth in scholarship and grantsmanship within the SON makes this a timely initiative.

Given the current shortage of PhD-prepared nursing faculty and the absence of a PhD in nursing programs within the state of Delaware, this program will meet the urgent need for nursing scholars within the state. The proposed program is aligned with the University of Delaware's Path to Prominence™ milestones of becoming a Premier Research and Graduate University with robust programs of graduate research and education. The development of nurse scientists is imperative as the University collaborates with Christiana Care Health System, Nemours/Alfred I. DuPont Hospital for Children, and Thomas Jefferson University as members of the Delaware Health Sciences Alliance.

The College of Health Sciences will provide the necessary resources to make this program a success. I am pleased to endorse the Doctor of Philosophy of Nursing Science in the School of Nursing.

KSM/KAS:jrb

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## **APPENDIX J**

### **School of Nursing Proposed Bylaws Change**

***NOTE: One member of this Sub-Committee will be appointed the Graduate Education Committee of the SON.***

#### **PhD in Nursing Science Program Sub-Committee**

##### **1. Composition**

- a. Three faculty members at the Professor or Associate Professor rank and who teach in the PhD program.
- b. The PhD Program Coordinator (appointed by the School Director) will chair the committee.
- c. One PhD in Nursing Science student as a voting member.
- d. School Director, *ex-officio*.
- e. Two student alternates to be selected by the Director when a PhD in Nursing Science student appeal is heard.

##### **2. Election:** The School Faculty elects committee members.

##### **3. Functions:**

- a. Conduct periodic review and evaluation of the individual courses and the curriculum of the PhD in Nursing Science program;
- b. Review proposals for curriculum development and make recommendations to School Faculty and Graduate Education Committee;
- c. Make recommendations for changes in degree requirements to the Graduate Education Committee and appropriate College and University committees;
- d. Recommend to the School Faculty policies for admission to, progression in, and graduation from the PhD in Nursing Science program;
- e. Review applications for admission to the program- applicants who meet admission criteria may be invited for an admission interview with the committee;
- f. Assist in the selection of academic advisors for doctoral students based on research areas of interest, an appropriate faculty match and faculty willingness to work with student;
- g. Establish and track student progression policies and academic standards (e.g. American Association of Colleges of Nursing's Quality Indicators for PhD Programs);
- h. Evaluate student eligibility for fellowships and other financial support;
- i. Make recommendations on awards and honors as appropriate; coordinate Honors Day activities (as related to doctoral students) with Student Affairs Committee;
- j. Participate in hearing appeals according to the policies for PhD in Nursing Science student;
- k. Periodically review the PhD in Nursing Science program policy statement and make recommendations to the Graduate Education Committee for change as needed;
- l. Conduct periodic review of the graduates of the program.

## APPENDIX K

### Faculty Interested in Teaching in PhD in Nursing Science Program

<b>Faculty Member</b>	<b>Rank</b>
Karen Avino	Assistant Professor
Kathleen Brewer-Smyth	Associate Professor
Carlton Brown	Assistant Professor
Cynthia Diefenbeck	Assistant Professor
Joseph T. De Ranieri	Assistant Professor
Bethany Hall-Long	Professor
Evelyn Hayes	Professor
Amy Johnson	Professor
Paula Klemm	Professor
Kenneth Miller	Professor
Carolee Polek	Associate Professor
Ingrid Pretzer-Aboff	Assistant Professor
Kathleen Schell	Associate Professor
Veronica Rempusheski	Professor
Janice Selekman	Professor
Gail Wade	Associate Professor



**APPENDIX L****Curriculum Map of Proposed PhD in Nursing Science Courses with Program Outcomes**

PhD Courses	Outcome #1	Outcome #2	Outcome #3	Outcome #4	Outcome #5
NURS 810	X	X			X
NURS 812	X	X			
NURS 814	X	X		X	
NURS 816	X	X		X	
NURS 833		X	X		X
NURS 834		X			X
NURS 835		X	X		X
NURS 841		X	X		X
NURS 842		X	X		X
Statistics electives	X	X			
Methodology elective	X	X			
Cognate electives		X	X	X	
NURS 850	X	X	X	X	X
NURS 964	X	X	X	X	X
NURS 969	X	X	X	X	X

**PhD Program Outcomes**

1. Generate new knowledge through research and theory testing;
2. Reflect a nursing and interdisciplinary perspective in research and scholarly endeavors;
3. Evaluate the relationship of the expanded knowledge base in nursing and external forces (i.e., economic, demographic, political, cultural) on the provision of health care to society, the education of nurses, and the development of health policy;
4. Contribute to solutions that advance health care in a culturally diverse society through communication of knowledge to the intra- and interdisciplinary scientific communities and the community-at-large;
5. Examine ways in which nursing knowledge and practice are related to and influenced by historical developments, philosophical thought, and cultural diversity

## **APPENDIX M**

### **American Association of Colleges of Nursing**

#### **Indicators of Quality in Research-Focused Doctoral Programs in Nursing**

##### ***Faculty***

- I. Represent and value a diversity of backgrounds and intellectual perspectives.
- II. Meet the requirements of the parent institution for graduate research and doctoral education; substantial proportion of faculty hold earned doctorates in nursing.
- III. Conceptualize and implement productive programs of research and scholarship that:
  - A. Are developed over time and build upon previous work;
  - B. Are at the cutting edge of the field of inquiry;
  - C. Are congruent with research priorities within nursing and its constituent communities;
  - D. Include a substantial proportion of extramural funding; and
  - E. Attract and engage students.
- IV. Outcome indicators of productive programs of research and scholarship include:
  - A. Extramural grant awards in support of research or scholarship;
  - B. Peer-reviewed publications of research, theory, or philosophical essays;
  - C. Presentations of research, theory, or philosophical essays;
  - D. Scientific review activities such as with NIH study sections and other grant application review groups;
  - E. Editorial review activities;
  - F. State, regional, national, or international recognition as a scholar in an identified area; and
  - G. Evidence of influence on science policy throughout the field.
- V. Create an environment in which mentoring, socialization of students, and the existence of a community of scholars is evident.
- VI. Assist students to understand the value of programs of research and scholarship that continue over time and build upon previous work.
- VII. Identify, generate, and utilize resources within the university and broader community to support program goals.
- VIII. Devote a significant proportion of time to dissertation advisement; generally each faculty member should serve as the major adviser/chair for no more than 3-5 students during the dissertation phase.

##### ***Programs of Study***

The emphasis of the program of study is consistent with the mission of the parent institution, the discipline of nursing, and the degree awarded. The faculty's areas of expertise and scholarship determine specific foci in the program of study. Requirements and their sequence for progression in the program are clear and available to students in writing. Common elements of the program of study are outlined below.

I. Core and related course content - the distribution between nursing and supporting content is consistent with the mission and goals of the program, and the student's area of focus and course work is included in:

- A. Historical and philosophical foundations to the development of nursing knowledge;
- B. Existing and evolving substantive nursing knowledge;
- C. Methods and processes of theory/knowledge development;
- D. Research methods and scholarship appropriate to inquiry; and
- E. Development related to roles in academic, research, practice, or policy environments.

II. Elements for formal and informal teaching and learning focus on:

- A. Analytical and leadership strategies for dealing with social, ethical, cultural, economic, and political issues related to nursing, health care, and research;
- B. Progressive and guided student scholarship research experiences, including exposure to faculty's interdisciplinary research programs;
- C. Immersion experiences that foster the student's development as a nursing leader, scholarly practitioner, educator, and/or nurse scientist; and
- D. Socialization opportunities for scholarly development in roles that complement students' career goals.

III. Outcome indicators for the programs of study include:

- A. Advancement to candidacy requires faculty's satisfactory evaluation (e.g., comprehensive exam) of the student's basic knowledge of elements I-A through I-E identified above;
- B. Dissertations represent original contributions to the scholarship of the field;
- C. Systematic evaluation of graduate outcomes is conducted at regular intervals;
- D. Within 3-5 years post-completion, graduates have designed and secured funding for a research study OR within 2 years post-completion, graduates have utilized the research process to address an issue of importance to the discipline of nursing or health care within their employment setting;
- E. Employers report satisfaction with graduates' leadership and scholarship at regular intervals post-completion; and
- F. Graduates' scholarship and leadership are recognized through awards, honors, or external funding at 3-5 years post-completion.

### ***Resources***

I. Sufficient human, financial, and institutional resources are available to accomplish the goals of the unit for doctoral education and faculty research.

A. The parent institution exhibits the following characteristics:

- 1) Research is an explicit component of the mission of the parent institution;
- 2) An office of research administration;
- 3) A record of peer reviewed external funding;
- 4) Post-doctoral programs;
- 5) Internal research funds;
- 6) Mechanisms that value, support, and reward faculty and student scholarship and role preparation; and
- 7) A university environment that fosters interdisciplinary research and collaboration.

B. The nursing doctoral program exhibits the following characteristics:

- 1) Research active faculty as well as other faculty experts to mentor students in other role preparations.
- 2) Technical support for:

- (a) Peer review of proposals and manuscripts in their development phases;
- (b) Research design expertise;
- (c) Data management and analysis support;
- (d) Hardware and software availability; and
- (e) Expertise in grant proposal development and management.

3) Space sufficient for:

- (a) Faculty research needs;
- (b) Doctoral student study, meeting, and socializing;
- (c) Seminars; and
- (d) Small group work.

C. Schools of exceptional quality also have:

- 1) Centers of research excellence;
- 2) Endowed professorships;
- 3) Mechanisms for financial support to allow full-time study; and
- 4) Master teachers capable of preparing graduates for faculty roles.

II. State-of-the-art technical and support services are available and accessible to faculty, students, and staff for state of the science information acquisition, communication, and management.

III. Library and database resources are sufficient to support the scholarly endeavors of faculty and students.

### ***Students***

I. Students are selected from a pool of highly qualified and motivated applicants who represent diverse populations.

II. Students' research goals and objectives are congruent with faculty research expertise and scholarship and institutional resources.

III. Students are successful in obtaining financial support through competitive intramural and extramural academic and research awards.

IV. Students commit a significant portion of their time to the program and complete the program in a timely fashion.

V. Students establish a pattern of productive scholarship, collaborating with researchers in nursing and other disciplines in scientific endeavors that result in the presentation and publication of scholarly work that continues after graduation.

### ***Evaluation***

The evaluation plan:

I. Is systematic, ongoing, comprehensive, and focuses on the university's and program's specific mission and goals;

II. Includes both process and outcome data related to these indicators of quality in research-focused doctoral programs;

III. Adheres to established ethical and process standards for formal program evaluation, e.g., confidentiality and rigorous quantitative and qualitative analyses;

IV. Involves students and graduates in evaluation activities;

V. Includes data from a variety of internal and external constituencies;

VI. Provides for comparison of program processes and outcomes to the standards of its parent graduate school/university and selected peer groups within nursing;

VII. Includes ongoing feedback to program faculty, administrators, and external constituents to promote program improvement;

VIII. Provides comprehensive data in order to determine patterns and trends and recommend future directions at regular intervals; and

IX. Is supported with adequate human, financial, and institutional resources.

American Association of Colleges of Nursing (2001). *Indicators of Quality in Research-Focused Doctoral Programs in Nursing* retrieved from <http://www.aacn.nche.edu/Publications/positions/qualityindicators.htm>