



Mary Jane Peitersen, Practice Consultant
Maryland Board of Nursing
4140 Patterson Ave.
Baltimore, MD 21215-2254
April 17, 1995

Dear Ms. Peitersen:

Attached is information requesting approval for a post-master's certificate option for the Neonatal Nurse Practitioner (NNP) track at the University of Maryland School of Nursing (UMSN). The program contains 600 clinical hours, and the ratio of clinical to classroom hours is 2/3 to 1/3.

The full program was approved by the Maryland Board of Nursing on April 26, 1994. This certificate is a new option. There are at least four master's-prepared nurses wanting to become neonatal nurse practitioners. Most of these students would like to start this certificate program in January, 1996 and graduate in December of that same year.

If you have further questions, please do not hesitate to call.

Yours truly,

A handwritten signature in cursive script, appearing to read "Regina M. Cusson".

Regina M. Cusson, PhD, RNC, NNP
Associate Professor

A handwritten signature in cursive script, appearing to read "Arthur J. Engler".

Arthur J. Engler, DNSc(c), RNC, NNP
Clinical Instructor
410-706-5450

Attachments

RMC:ae

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**THE UNIVERSITY OF MARYLAND
SCHOOL OF NURSING**

The following sections contain an overview of the philosophy, conceptual framework, purpose and objectives, as well a description of the relationship of the project to the ongoing curricula of the UMSN, the plan, the plan of study, details of didactic and clinical hours, and biographical sketches of faculty involved in the certificate option. Finally, the syllabi for the courses required of post-master's students, and the Clinical Evaluation Tool.

Philosophy

Nursing is a dynamic and evolving practice discipline that is concerned with the promotion of health and with human responses to actual and potential health problems. Nursing goals include the promotion and protection of health, the prevention of illness, care of the suffering and ill, and the support for a peaceful death or loss.

Nursing occurs within the context of a caring relationship, the purpose of which is to assist individuals, families, groups, communities, and populations in a variety of settings to achieve optimal health and to make informed choices for their own well-being.

Nursing has a distinct body of knowledge which can and must be extended, verified, and revised using the methods of scholarly inquiry. It involves the selection, integration, and expansion of knowledge from nursing and other disciplines, including the social sciences, biological sciences, and humanities. This knowledge is applied to the understanding of health and illness and to the analysis and improvement of nursing practice.

Nursing is a research-based practice which uses empirical, ethical, personal and aesthetic perspectives in the application of the nursing process. Essential for the practice of nursing are knowledge, critical thinking, communication, interpersonal competence, leadership, management, teaching, psychomotor and analytic skills, and the use of current research, technology and information systems.

At all levels, the practice of professional nursing is based on a distinct body of knowledge and includes multiple responsibilities. These responsibilities include, but are not limited to, providing direct care, providing information for persons to make informed health care choices, facilitating persons to act on their own behalf, managing care, and applying research to practice. Advanced nursing practice consists of theoretically/conceptually based diagnostic reasoning and decision making strategies as the foundation for solving complex health care problems through a multiplicity of responsibilities. Advanced nursing practice is defined as specialty practice which is based on principles derived from relevant theory and research findings, and includes two interrelated spheres of activity: direct service to persons and indirect action carried out for the enhancement of direct nursing knowledge, health care systems and health policy.

Persons are holistic beings who have interactive dimensions. These dimensions are physical, psychological, spiritual, social, and cultural. The individual person has intrinsic worth and is entitled to respect. Persons have the right to seek and achieve optimal health, the right to make informed choices, and the responsibility for their own health care decisions. Persons are capable of reflecting upon their experiences. Their perceptions of these experiences along with their values and principles guide their health care decisions as well as their interactions with others. Throughout their lifetime, persons grow and develop individually and within families, groups, communities, and populations.

Health is a multidimensional balanced expression of physical, psychological, developmental, spiritual, and social well-being. The expression of a person's health and/or illness is a reflection of the interaction of the person and the environment, and is expressed in human responses. Health is dynamic and uniquely defined and redefined by persons as they progress through their lifetime.

The environment is the context within which persons, families, groups, communities, and populations live and within which nurses practice. The context can be viewed from a variety of dimensions including physical, social, ethical, cultural, legal, spiritual, historical, economic, political, and organizational. These dimensions are discrete, interactive, and may change over time. Persons are in continuous and mutual interchange within their contextual dimensions. They bring experiences that can be valuable to developing a dynamic and quality environment. The dynamic interaction between persons and the environment affects their health and the achievement of well-being.

Learning is an active and lifelong process. Learning is facilitated through a reciprocal interaction between faculty and students, and occurs best within a caring and supportive environment where students are ultimately responsible for their learning. Differences among people necessitate various educational approaches.

Nursing education respects and builds upon the prior education and practice experiences of the learner. Nursing education at the baccalaureate level prepares professional nurses who are generalists and value life-long learning. Nursing education facilitates the development of students' empirical, ethical, aesthetic, and personal perspectives for the purpose of making and accepting responsibility for practice decisions. Baccalaureate education prepares nurses to participate in research, apply research findings to practice, and contribute to the development of the profession. Baccalaureate nursing programs are foundational for graduate study in nursing. Graduate education is characterized by an emphasis on specialization at the masters level, and a commitment to research and involvement in the development and refinement of knowledge at the doctoral level.

Conceptual Framework

The primary focus of the Master's curriculum is the discipline of nursing. The curriculum is designed to prepare students in specialized areas of advanced nursing practice, areas that are developed and have evolved in response to changing societal needs. The basic strands that run throughout the Master's curriculum are theory, research, and role specialization relevant to advanced nursing practice.

Theory: Theory from nursing and related disciplines serves as a foundation for practice, research, and role development within nursing.

Research: Research in nursing includes both applied and basic research. Nursing research explores and defines the knowledge necessary to provide direct and indirect nursing and health care. Theory development and refinement occur as results of research.

Role Specialization: Human responses are affected through various direct and indirect roles within organizations. Advanced professional nursing roles are based upon changing societal needs, sociopolitical trends, and health care delivery systems.

Purpose and Objective

The Master's program in nursing is formulated with the understanding that graduate education builds upon undergraduate education. Graduate education promotes an intensive and analytic expansion of knowledge, enabling the perception and development of new and more complex relationships that affect nursing practice. Graduate education provides further opportunity for the student to think conceptually and to apply theory and research to practice.

The purpose of the Master's program is to prepare nurses for advanced nursing practice and for entry into doctoral study.

The terminal objective of the Master's program is to prepare graduates who:

- Utilize theory and research from nursing and related disciplines as a basis for advanced nursing practice and scholarly inquiry.
- Demonstrate competence in a specialized area of nursing.
- Generate innovative and effective nursing actions for advanced nursing practice using the process of critical thinking.
- Collaborate with health care providers and consumers to achieve health care goals.
- Integrate legal and ethical dimensions of practice into professional nursing specialty roles.
- Assume responsibility for improving the delivery of health care and advancing the nursing profession.

In addition to the knowledge and practice components of the objectives listed above, the behavior of graduate students should reflect an internally consistent value system. Graduate students are expected to value scientific

inquiry as a basis for professional practice and to seek to increase their contributions to the nursing profession.

Relationship of the Project to the Curriculum

The Neonatal Nurse Practitioner certificate option is an expansion of the Neonatal Nurse Practitioner Specialty track. The UMSN has one admissions process for all graduate students. Admission requirements include: master's degree in nursing from a program accredited by the National League for Nursing, minimum master's grade point average of 3.0 on a 4.0 scale, official scores on the Graduate Record Examination, minimum of two years of NICU experience, three letters of reference, and a valid nursing license. Students in the Neonatal Nurse Practitioner certificate option complete 30 graduate credits. There is the possibility of certain courses being waived based on prior graduate educational work as indicated below. Specifically, if students have had course work in advanced nursing of the childbearing family and neonate, neonatal-pediatric physiology, or families in crisis, they will not be required to repeat it. An overview of the certificate option curriculum is presented below with specific courses:

Core Courses (12 credits): There are four core courses, including NURS 602: Critical Approaches to Nursing Theories, NURS 606: Influential Forces in Nursing and Health Care, and NURS 701 and 702: Nursing Research Designs and Analysis I and II. Post-master's students will be exempted from taking these courses since they are not pursuing a second master's degree.

Specialty Certificate Option Courses (22 credits): There are five clinical courses that form the nucleus of the NNP certificate option. They are taken in a specified sequence and build in complexity and specialization. In addition to an emphasis on advanced clinical practice expertise, three themes are developed within the sequence: the advanced practice/NNP role, research utilization, and primary care/developmental issues. Finally, health teaching and counseling are integral parts of the entire program.

The first clinical course, Advanced Nursing of the Childbearing Family and Neonate (4 credits), introduces the role of the NNP in the management of normal and high-risk families and infants. The focus of the course is to develop skills in physical and psychosocial assessment of childbearing families during all phases of the childbearing process: antenatal, intrapartal, post-partal, and the neonatal periods. Application of the advanced nursing role in improving outcomes and care of these families, particularly the family at risk, is discussed. During this course, students will have experience with Brazelton's Neonatal Behavioral Assessment Scale and Barnard's Nursing Child Assessment Satellite Training scales (NCAST). Certification on the NCAST will be offered. Students with appropriate backgrounds will be exempted from this course.

The second clinical course, Advanced Nursing of the High-Risk Neonate I (6 credits), develops the knowledge base and the skills necessary in caring for infants at risk. This course begins the four-course clinical sequence. The emphasis in this course is the development of a physiologic basis of managing care of the high-risk neonate. The embryology, pathophysiology, and management

of problems experienced by the high-risk neonate are presented in detail. Role development is continued as students explore the impact that the NNP has on improving services to high-risk infants and their families within the context of the neonatal intensive care unit (NICU). Non-clinical requirements for this course will be adapted for post-master's students with appropriate backgrounds.

The third clinical course, Advanced Nursing of the High-Risk Neonate II (3 credits), offers students the opportunity to begin to apply the material learned in the first two clinical courses in the NICU. While the second course provided the physiologic base for provision of care and the opportunity to develop skills, this third course enables students to participate in case management of high-risk infants and families. Clinical experiences provide students with the opportunity to integrate knowledge and skills in managing care of high-risk infants and families. Continuing focus on role development will also occur. Non-clinical requirements for this course will be adapted for post-master's students with appropriate backgrounds.

The fourth clinical course, Advanced Nursing of the High-Risk Neonate III (6 credits), is the final synthesis course in the clinical sequence. Students will continue to manage care of the high-risk neonate with an emphasis on developing collaborative relationships with other members of the health team. Experience with and certification in Als' Neonatal Individualized Developmental Care and Assessment Program (NIDCAP) will be offered during this course. Continuing discussion of the advanced practice role is also completed in this course. There will be some interface with non-Perinatal/Neonatal students during this course, especially regarding advanced practice role issues. Non-clinical requirements for this course will be adapted for post-master's students with appropriate backgrounds.

The fifth clinical course, Primary Care of the High-Risk Neonate (3 credits), which is taken concurrently with Advanced Nursing of the High-Risk Neonate III, gives students the skills necessary to provide primary health care to high-risk infants after NICU discharge. The clinical component will include preparation for discharge, community resources, home visits, and experience in the ambulatory setting. Small group clinical seminars will focus on critical analysis of primary health care issues for the high-risk infant in the home and follow-up clinic.

Support Courses and Electives (8 credits): Neonatal students may enroll in a neonatal physiology course (NPHY 630), a neonatal-pediatric pharmacology course (NURS 743), and a course focusing on theory and interventions for families in crisis, which also has a clinical component (NURS 755). Depending on the student's prior course work, some or all of these courses may be waived.

NEONATAL NURSE PRACTITIONER POST-MASTER'S CERTIFICATE OPTION
WITHIN THE DEPARTMENT OF MATERNAL CHILD HEALTH NURSING

Plan of Study

<u>Course No.</u>	<u>Course Title</u>
<u>FALL SEMESTER</u>	
NURS 639*	Advanced Nursing of the Childbearing Family and Neonate (4)
NPHY 630*	Neonatal-Pediatric Physiology (2)
<u>SPRING SEMESTER</u>	
NURS 743	Neonatal-Pediatric Pharmacology (2)
NURS 649	Advanced Nursing of the High-Risk Neonate I (6)
<u>SUMMER SESSION</u>	
NURS 748	Advanced Nursing of the High-Risk Neonate II (3)
<u>FALL SEMESTER</u>	
NURS 749	Advanced Nursing of the High-Risk Neonate III (6)
NURS 742	Primary Care of the High-risk Neonate (3)
NURS 755*	Families in Crisis (3)

*Depending on the student's prior course work, some or all of these courses may be waived.

Biographical Sketches

Regina M. Cusson, PhD, RNC, NNP, is the Project Director and is responsible for the overall management and implementation of the project. Dr. Cusson has worked to bring a Master's NNP program to the State of Maryland for several years. She is well-prepared in terms of her experience and educational preparation to provide leadership and serve as Project Director. Dr. Cusson's primary appointment is in the Department of Maternal Child Health Nursing. She also holds an appointment as Adjunct Assistant Professor of Neonatal Nursing at The University of Pennsylvania School of Nursing. In this capacity, she has served as faculty mentor to three NNP students from the University of Pennsylvania, placing them in clinical practica sites and supervising their clinical experiences. She is well versed in program planning and implementation, which will be invaluable as she develops the NNP certificate option.

Dr. Cusson is an experienced neonatal nurse researcher. She has been funded by National and local organizations, including The National Center for Nursing Research, The March of Dimes Foundation, and, most recently, The Thomas Wilson Foundation, a local organization dedicated to improving the health of children in Baltimore City. Her main research interests include stress in the high-risk infant, nursing care designed to enhance developmental potential, and mother-preterm infant interaction and attachment. Her research expertise will enable her to guide the evolution of both the research and developmental threads of the curriculum.

Dr. Cusson is active in the local and national levels of The National Association of Neonatal Nurses (NANN). She served as the first Chairperson of the Strategic Planning Committee of the local chapter and was instrumental in the development and interpretation of the educational needs assessment. She also is a member of the NANN National Research Committee. She assumed Contributing Editor of Neonatal Network January, 1993 and is responsible for the Research Column. She has published in both nursing and developmental journals on neonatal and research topics.

Renee Fox, MD serves as Project Faculty and liaison between the Division of Neonatology and the UMSN. Dr. Fox has worked extensively with NNPs and brings a real interest in developing a high quality Master's NNP program to the project. Dr. Fox's comprehensive experience as a neonatologist will make her an invaluable asset to the teaching faculty, particularly in planning and implementing the second semester Advanced Care of the High-Risk Neonate I course. Dr. Fox's research interests include respiratory issues, such as developmental metabolism, control of respiration, and treatment modalities such as high frequency ventilation. Dr. Fox has published primarily in neonatal journals and textbooks.

Arthur J. Engler, DNSc(c), RNC, MS, NNP, serves as Project Coordinator. Mr. Engler received his MS from UMSN in 1985 and completed training as an NNP from the Georgetown University Hospital certificate program in 1987. He has worked in NICU care since 1980 and his wealth of experience is an asset to the implementation of the curriculum. He served as a research assistant when he was a graduate student at UMSN so he is familiar with responsibilities involved in

coordinating a funded project. Mr. Engler is active in NANN at the local and National level where he serves as Co-Chair of the Governmental Affairs Committee. Mr. Engler has published in nursing and medical journals and has presented at conferences throughout the country. His research interests lie in the areas of grief, bereavement, and loss.

Janice L. Wilson, MS, RNC, NNP, serves as a clinical instructor in the project. Ms. Wilson received her BSN from UMSN in 1974 and completed training as an NNP from the Georgetown University Hospital certificate program in 1980. She has worked in NICU care for over 20 years and brings a high level of professional experience and competence to the project. Ms. Wilson completed her master's at UMSN in 1994 and was one of the first two NNPs to do so. She is active in many professional organizations and associations, including the Maryland Board of Nursing, the National Association of Neonatal Nurses, and the West-East Chesapeake Association of Neonatal Nurses. Ms. Wilson's graduate research was in the area of neonatal pulmonary function.

Supporting Faculty from The University of Maryland School of Medicine

Supporting faculty will be assisting with the teaching of medical management content in NURS 649: Advanced Nursing of the High-Risk Neonate I.

Ira Gewolb, MD, Director

Primary Research - Substrate and insulin effects on fetal lung development; Opiates and the fetal lung; Predictors of neonatal neurological outcome

Lillian Blackmon, MD

Primary Research - Epidemiology of extreme prematurity; Perinatal infections; Bronchopulmonary dysplasia

James Bosma, MD

Primary Research - Feeding development and dysphagia in infants and children

Renee Fox, MD

Primary Research - Developmental metabolism of the lung; Pulmonary function test in newborns;

Ronald Gutberlet, MD, Chairman of Pediatrics, Mercy Medical Center

Primary Research - Neonatal mortality; Regionalization of care

Timothy Palmer, MD

Primary Research - High frequency ventilation; Neonatal immunology, NICU graduate development

John Torday, PhD

Primary Research - Fetal lung development, regulation of pulmonary surfactant metabolism

Rose Viscardi, MD

Primary Research - Lung development; Injury of developing lung; Bronchopulmonary dysplasia

UNIVERSITY OF MARYLAND

SCHOOL OF NURSING
COURSE SYLLABUS

COURSE TITLE: NURS 639: Advanced Nursing of the Childbearing Family and Neonate

CREDITS: 4 - 2 hours class = 2 credits, Tuesdays 1:00 - 3:00 p.m.
6 hours clinical = 2 credits

FACULTY: Tari G. Radin, Ph.D., R.N.
Whitehurst Hall, Rm. 208, 410-706-1799
Arthur J. Engler, D.N.Sc.(c), R.N.C., N.N.P.,
Course Coordinator
Whitehurst Hall, Rm. 311, 410-706-5450

COURSE DESCRIPTION:

The purpose of this first clinical course is to introduce the role of the advanced practice nurse in the management of normal and high-risk families and infants. The focus of the course is to develop skills in physical and psychosocial assessment of childbearing families during all phases of the childbearing process: antenatal, intrapartal, postpartum, and the neonatal period. Special emphasis will be placed on events during the antenatal, intrapartum and postpartum period that impact on the neonate and on application of the advanced nursing role in improving outcomes and care of these families, particularly the family at risk.

COURSE OBJECTIVES:

At the completion of the course, the student will be able to:

1. Analyze the effect of the maternal, antenatal, and intrapartal experience on the neonate.
2. Differentiate problems experienced by the normal vs. the high-risk childbearing family.
3. Develop a knowledge base that includes specified concepts and assessment strategies needed in caring for the childbearing family and neonate.

4. Demonstrate competency in physical and behavioral assessment of the normal and high-risk neonate.
5. Analyze the utilization of advanced practice roles in nursing of childbearing families and neonates.

COURSE REQUIREMENTS:

This class will meet once a week for a two hour session of lecture and discussion. In addition, clinical practice will consist of six hours a week arranged by the faculty. The student will utilize the obstetrical service of the clinical agency to meet clinical requirements. In addition, introduction to the advanced practice role will include precepted experiences with advanced practitioners in the clinical setting. Nursing Child Assessment Satellite Training (NCAST) will be offered; students must pass NCAST testing in order to pass the course.

CLINICAL EXPERIENCES:

Successful completion of this course requires that you spend 90 hours in the clinical site. You should consult with your preceptor and develop a schedule that will allow you to complete these hours before the end of the semester. Your clinical time should be spent in the prenatal clinic, high-risk antepartum unit, labor and delivery suite, post-partum/mother-baby unit, and normal newborn nursery. You will keep a clinical log to document your experiences and more detail on that is provided below.

CLINICAL LOG GUIDELINES

- 1 The first section should be a Weekly Diary, including highlights of clinical experience, communication with family and staff, accomplishments/plans for the future. For this semester, this will be the most utilized section.
- 2 The second section should be the Write-up Section, including five complete neonatal assessments. Please see Physical Exam Documentation Guidelines for format.
- 3 Remember, this Clinical Log is a documentation of your clinical progress and as such, is reflective of your clinical performance. We are relying upon your self

documentation of clinical progress to determine your clinical grade (pass/fail).

METHOD OF EVALUATION AND GRADING:

1. Evaluation of the mastery of the didactic portion of the course will be based on a final exam and a role paper. Clinical competencies will be graded on a pass/fail basis and must be passed to pass the course. Evaluation conferences at midterm and other times as appropriate will be provided by course faculty.

2. Criteria for Final Grade

Mid-term Exam	15%
Final Exam	25
Research Utilization Paper	40
Clinical Rounds Perinatal	10
Clinical Rounds Neonatal	<u>10</u>
	100%
NCAST Training	P/F
Clinical	P/F

NCAST TRAINING

The Nursing Child Assessment Satellite Training Project (NCAST) teaches the learner about newly developed child health assessment strategies. This training helps learners become more sensitized to the importance of environmental conditions during the first year of life, not only for the child, but the parents as well.

MID-TERM (15%) AND FINAL (25%) EXAMS

The take-home mid-term exam will consist of three case management problems, of which the student will choose **one** to which to respond. The final exam will consist of three case management problems, of which the student will choose **two** to which to respond.

Research Utilization Paper - 40%

Each student will investigate the research literature on a specific nursing intervention used in perinatal/neonatal care. A research-based protocol developed from the available research will be devised. This protocol may follow the format utilized in the student's clinical agency. Alternatively, it may utilize a generic two-column format in which the left-hand column contains the nursing intervention and the right-hand column contains the rationale with research-based references. Opportunity to produce a manuscript for publication is encouraged but not mandatory.

- 1 Submit a topic to faculty for approval by **10-11-94**. Include the intervention and a minimum of **five** key references. This must be typed and include a detailed outline.
- 2 **The body of this paper is limited to 15 pages**, including a critique of relevant research, on a specific intervention used in perinatal/neonatal care and a research-based protocol. This includes only the body of the paper; it excludes the title page, abstract, references, and appendices. This paper is due **11-15-94**. Please submit two copies and follow A.P.A. format carefully.
- 3 Possible research utilization project areas¹ are:

Maternity Nursing

- 1 Identifying abused women through the routine use of screening questions.
- 2 Promoting breastfeeding by modeling the home experience in the hospital.
- 3 Using upright versus recumbent position during second-stage labor to reduce fetal compromise and maternal pain.

¹ These topics were identified by NAACOG's Research Utilization Task Force (1990) as areas in which a sufficient base exists to guide implementation and evaluation of changes in clinical practice. Topics for research utilization projects are not limited to those on this list.

- 4 Using exhalatory versus sustained bearing down during second-stage labor to reduce abnormal FHR patterns and low Apgar scores.
- 5 Using antacids and dietary fiber in pregnancy.
- 6 Decreasing use of pharmacologic analgesia in childbirth.
- 7 Reducing smoking during pregnancy through patient education programs.
- 8 Improving parental knowledge and skills about behavioral capabilities of newborn infants.
- 9 Reducing depression and anxiety in bereaved parents through enhanced care strategies.
- 10 Abandoning such practices as:
 - a Leaving women unattended in labor
 - b Failing to include women in decision-making
 - c Routinely using episiotomy
 - d Advising restriction of weight gain during pregnancy

Women's Health Nursing

- 1 Motivating women to initiate and maintain regular breast self-examination in conjunction with a regular program of clinical examination and mammography.
- 2 Promoting pelvic muscle strengthening for mild and moderate stress urinary incontinence.
- 3 Preparing mother-daughter dyads for menarche.
- 4 Preparing women for menopause as a normal, healthy life transition.
- 5 Using both psychologic and physical examination components for routine screening of women for emotional, sexual, and/or physical abuse.

Neonatal Nursing

- 1 Using comfort measures, e.g., non-nutritive sucking, during or in anticipation of stressful procedures.
- 2 Removing barriers to successful breastfeeding; improving breastfeeding success in preterm infants.
- 3 Improving skin integrity of low birthweight infants.
- 4 Improving neonatal thermoregulation.
- 5 Reducing physiologic sequelae of infant suctioning.
- 6 Using telephone follow-up services, especially for high-risk infants and families.