

UMSL College of Nursing PhD Course Descriptions

N7200 Nursing Science Credits: 3 Prerequisite(s): Admission to doctoral study in nursing

Course Description: This course examines the state of scientific knowledge in nursing research and advanced clinical practice. Students will analyze the development of major streams of scientific development in nursing and gaps that remain in understanding critical nursing and health-related phenomena, interventions, and outcomes. The course will address the interrelationships between nursing science and scientific developments in other disciplines from the perspectives of health outcomes, population health indices, and policy implications of scientific progress. Students will evaluate advances in biophysiological, psychosocial, sociocultural, health systems, and health economics research and their implications for nursing care and outcomes. They will collaborate in identifying gaps in the state of the science in high priority topical areas and gaps between recommended best practices and current clinical practice and health policy, and in determining next steps to improve nursing care and outcomes based on science.

N7211 Biostatistics 1 Credits: 3 Prerequisites: Admission to doctoral study in nursing

COURSE DESCRIPTION: This course provides a comprehensive understanding of the general linear model. Data description, logic of sampling and test statistics, hypothesis testing, type 1 and type 2 errors are included. Test statistics include one-way ANOVA (analysis of variance); planned comparisons, post-hoc tests and trend analysis; factorial ANOVA; repeated measures designs and mixed randomized repeated designs; multiple comparison techniques; and simple and multiple regression.

N7212 Biostatistics 2 Credits: 3 Prerequisites: N7211

Course Description: This course is designed to provide a conceptual understanding of the statistical procedures associated with power analysis and advanced statistical methods.

N7401 Research Institute I Credits: 2 Prerequisites: Admission to the DNP or PhD Nursing Program

Course Description: This course provides an introduction to the process of becoming a research scientist. Content will include the responsible conduct of research, its core elements, the emerging guidelines, relevant policies and procedures, and the impact to the researcher in day-to-day activities. This course also includes literature reviews, scholarly writing, technology in the research process, developing a program of scholarship and effective time management.

N7402 Research Institute 2 Credits: 2 Prerequisites: Completion of 14 credit hours of the PhD program or consent of instructor.

Course Description: This course assists students to develop the skills necessary for the analysis of research findings, the identification of funding sources and the foundation of the grant writing process. Develop and present research findings in multiple venues.

N7403 Research Institute 3 Credits: 2 Prerequisites: N7402

Course Description: This course addresses the role of the PhD prepared nurse in the roles of scientist, leader, academician, and policy maker. Students will analyze strategies for lifelong learning and development as nurse scientists and will explore avenues for building their programs of scholarship and contributing to the use of nursing science in policy and clinical practice. They will examine ways to collaborate effectively with members of the public, nursing colleagues, and inter-professional colleagues to improve health care and outcomes.

N7404 Research Institute 4 Credits: 1 Prerequisites: Admission to candidacy.

Course Description: This course will assist students to analyze and synthesize their ideas with other students regarding all aspects of the dissertation including plans to collaborate with other, write, fund, publish, and present their research findings.

N7481 Development of Nursing Science and Theory Credits: 3 Prerequisites:

Admitted to the doctoral program/ consent of the instructor

Course description: This course focuses on the discipline of nursing, including the evolution of the state of the art theory development in nursing. The course includes the aims of nursing science, the nature of scientific theories, theory analysis, and a discussion of relationships among theory, research, and practice. Students engage in constructive dialogue as they begin to conceptualize nursing phenomena in their area of interest, and develop and evaluate the validity of a conceptual model.

N7491 Advanced Nursing Theory Development and Validation Credits: 3

Pre-requisite: N7481 or consent of instructor

Course Description: This course focuses on a systematic study of contemporary nursing and related theories, on knowledge development, and on the application of major theory construction and validation strategies to specific nursing phenomena of interest. Students create and critically examine theoretical frameworks and models, with emphasis placed on constructing and testing theoretical statements.

N7485 Nursing Research Designs and Methods Credits:3 Prerequisite

Admission to the PhD in Nursing Program, N6112, and instructor's consent.

Course Description: This course focuses on methods commonly used in studies related to a particular scientific area. Based on the state of the science, research literature will be summarized in all aspects of research including the methods, measures, findings as well as an analysis of research gaps resulting in identification of potential researchable questions. These questions will be linked to quantitative research methods appropriate for further nursing research including experimental and non-experimental methods such as quasi-experimental, longitudinal, correlation, and descriptive design. Advantages and limitations of these designs will be addressed.

N7490 Advanced Nursing Research Designs and Methods Credits: 3

Prerequisites: N7485 or consent of the instructor

Course Description: This course focuses on development of the research plan including issues in sampling, design, and implementation nursing research including interventions. Students will evaluate research methods to answer their research questions in their area of interest. Content includes design and analysis issues affecting internal and external validity. Content includes examination of measurement and techniques for assessing validity, reliability, and structure of data collection instruments; instrument construction and criteria for instrument selection. A research proposal will be prepared.

N7498 Doctoral Seminar Credits: 1-12

Prerequisites: Consent of instructor.

Course Description: Presentation and discussion of pertinent methodological and clinical issues related to doctoral research.

N7499 Dissertation Research Credits: 1-12 Prerequisites: All required course work; successful completion of written comprehensive examination.

Course Description: Investigation of an advanced nature culmination in successful defense of dissertation. Continuous registration is required.