NUR 630: Philosophical Foundations of Nursing Science
This course explores historical and current views of knowledge development underpinning philosophies of science, social science, and nursing science. Underlying ontological and epistemological assumptions of philosophical views and how they influence scientific inquiry in nursing will be addressed. A key component of these discussions will be the implications of diverse perspectives on theoretical thinking, scientific inquiry, and knowledge development in nursing.
3 credits, Letter graded (A, A-, B+, etc.)

NUR 631: Concepts, Theories and Knowledge Development in Nursing Science
This course will provide doctoral students with a systematic overview of concepts and theories as a foundation for knowledge development in nursing. Conceptual and analytical skills are developed through analysis and critique of nursing concepts, clinical phenomena and science-based theories. The course examines the theoretical and empirical foundation of nursing, approaches to the analysis and development of nursing concepts, the role of concepts in nursing science, and the applicability of nursing concepts and theories to clinical practice. Focus will be on development and use of conceptual language, critical thinking skills, and in analyzing literature portraying key nursing concepts.
3 credits, Letter graded (A, A-, B+, etc.)

NUR 635: Biostatistics
This course will provide the student with knowledge of statistical approaches utilized in epidemiological studies. Analysis of risk factors and disease data will be emphasized. Applying epidemiologic methods to critically evaluate the evidence used in clinical decision making will be an important aspect of this course.
3 credits, Letter graded (A, A-, B+, etc.)

NUR 636: Advanced Statistical Methods
This course will build on the foundations of NUR 635 and extend the doctoral student’s exposure to more complex inferential statistics used in healthcare research. Statistical applications will be explored in the context of nursing research. Practical application of these statistical methods will be conducted using SPSS statistical software.

NUR 647: Doctoral Research Seminar
This course will provide the student with the academic skills necessary to build the scientific foundation for the advanced practice of nursing. Theory and evidence-driven projects will be developed in collaboration with interdisciplinary mentors. Peer review skills will be refined.
4 credits, Letter graded (A, A-, B+, etc.)

NUR 660: Quantitative Designs and Methods in Nursing Research
This course explores the major designs and methods used for the investigation of problems requiring quantitative approaches. Types of research designs are analyzed including major strengths and limitations of each. Population sampling, participant selection, and data collection and analysis methods are compared and contrasted.
3 credits, Letter graded (A, A-, B+, etc.)

NUR 661: Qualitative Methods in Nursing Research
This course explores the major approaches to qualitative inquiry. Philosophical or theoretical underpinnings specific to each approach are analyzed. Selected frameworks for data collection and analysis are presented. Selection of participants, data collection and analysis of each tradition are compared and contrasted. The elements of rigor in qualitative inquiry are explored.
3 credits, Letter graded (A, A-, B+, etc.)

NUR 662: Data Management and Informatics for Clinical Scientists
The aims of this course will be achieved by participation in a 45-hour (3 credit) course consisting of lectures, hands-on computer application training/labs, hands-on exercises/assignments, discussions, and quizzes, and an individual final presentation. The course will provide training in questionnaire design, the use for REDCap for data input and managements, Excel for budget management, SPSS for data processing and analysis, and Power Point for print/slide presentations and report generation. Trainees will be instructed in the conduct of good clinical practice as it relates to data collection and data management. Trainees will be introduced to available comprehensive systems for collaborations, data management and data capture (e.g., REDCap, on Core) and issues of data security as it relates to clinical research. The hands-on exercises/assignments, discussions, quizzes, and homework assignments will help to develop skills in questionnaire design, methods of data study collection, data capture, and data management while enforcing skills for data analysis and presentation of study results. This course includes issues related to data management and data collection for a clinical research project to meet the needs of this group of trainees. Trainees will be evaluated by participation in the class exercises, homework assignments, quizzes, online course discussions through Blackboard, development of an individual simulated project, and an individual oral presentation of the student’s simulated project describing their choices for data management methods and results to be presented during the last two classes. The individual project will include development of a questionnaire, codebook, database and creation of a test data set for use in conducting analyses and the final presentation.
3 credits, Letter graded (A, A-, B+, etc.)

NUR 670: Independent Studies
This student-initiated elective course provides an opportunity to use enhance the depth of a student’s chosen area of research. The independent student can be in specific content areas or methodological or analytical approaches. Independent Studies cannot replace courses for a degree.
1-3 credits, Letter graded (A, A-, B+, etc.)
May be repeated 4 times FOR credit.

NUR 680: Integrating Big Data to Evaluate Population Health
This course will focus on available sources of population data, how to access them, and begin to explore geographic regions through data. Students will be introduced to the field of Biomedical Informatics. Innovative tools developed at Stony Brook by informaticians to evaluate population health will be presented. Students will learn how to use data to identify populations at risk who they are, where they live and to identify key focus areas to target intervention. With this knowledge students will be able to outline programs that may reduce health disparities, as well as evaluate other health risks in regional populations.
1-3 credits, Letter graded (A, A-, B+, etc.)

NUR 690: Dissertation Seminar I
This course focuses on the development of the doctoral dissertation proposal. Students will apply their theoretical knowledge and research proficiency to transform their general ideas about their dissertation topic into a research strategy. Students will prepare key elements of the dissertation proposal, including Statement of the Problem, Research Questions and/or Hypotheses Conceptual/Theoretical Framework, Literature Review, and Research Methods. Using a seminar format, teaching-
learning strategies are designed to promote critical/analytical thinking and scholarly discourse.

6 credits, Letter graded (A, A-, B+, etc.)

**NUR 691: Dissertation Seminar II**
This course focuses on the conduct of the doctoral dissertation under the guidance of the student's dissertation committee. Students will secure applicable human subjects protection, carry out their research methodologies, and complete analyses of data. The course culminates in a scholarly paper (Dissertation) that exemplifies the student's expertise and their new and creative contribution to nursing. Using a seminar format, teaching-learning strategies are designed to promote critical/analytical thinking and scholarly discourse. Students are required to provide regular updates of the study's progress to the dissertation committee chairperson.

6 credits, Letter graded (A, A-, B+, etc.)

**NUR 697: Research Practicum**
The course introduces graduate students to significant and methodologically rigorous research. School of Nursing faculty and affiliated faculty from Stony Brook Medicine and Stony Brook University will serve as preceptors as students engage in a supervised, hands-on practicum with ongoing research. Students will develop contracts that identify individualized learning outcomes of the practicum that will be facilitated by direct advisement and mentorship of School of Nursing and affiliated faculty. Opportunities during the practicum will include subject recruitment and screening, data collection and analyses, interpretation of results, research report writing and preparation of products for scholarly dissemination. While the research practicum may not necessarily expose students to the specific population or problem of greatest interest to them, the skills or competencies mastered can prepare students methodologically to carry out their dissertation research strategy.

3 credits, S/U grading

**NUR 698: Teaching Practicum**
The course introduces graduate students to the major pedagogical theories and practices in academia. Students will develop contracts that identify individualized learning outcomes of the practicum that will be facilitated by direct advisement and mentorship of School of Nursing faculty. The practicum will include the student teaching part of a course, developing learning modules and student assignments, evaluating student performance, and evaluating their own teaching performance.

3 credits, S/U grading

**NUR 699: PhD Dissertation Research - On Campus**

**NUR 700: PhD Dissertation Research- Off Campus**

*M May be repeated for credit.*

**NUR 701: PhD Dissertation Research- Off Campus (International)**

*M May be repeated for credit.*

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