NST-Nursing Statistical Methods

NST 755. Data Mining & Statistical Techniques. 3 Hours.
This course covers major concepts and algorithms of data mining. The course will be taught using the SAS Enterprise Miner program. The final project will demonstrate all the data mining techniques covered in the course and furthermore expose students working with real data. At the end of the course students will be proficient in utilizing data mining techniques to exploit data patterns and behavior, gain insider understanding of the data, and produce new knowledge that healthcare decision-makers can act upon.
Prerequisites: NUR 756 [Min Grade: B]

NST 758. Inferential Statistics I. 3 Hours.
The purpose of this course is to provide an underpinning for the understanding of statistical methods and findings. Students will gain an understanding of common statistical models and applications of probability, sampling distributions, parametric and non-parametric one and two sample tests, confidence intervals, applications of analysis of two-way contingency table data, simple linear regression, and simple analysis of varience.
Prerequisites: NST 778 [Min Grade: B]

NST 772. Data Mining and Statistical Learning I. 3 Hours.
NST 772 is an elective course for PhD students. This is the first course in a two-course series that provides further exposition of advanced statistical analysis and data mining techniques for students interested in doing research that involves considerable quantitative analysis in their dissertation and/or future professional work.

NST 773. Data Mining/Stats Learning II. 3 Hours.
NST 773 is an elective course for PhD students. This is the second course in a two-course series that provides further exposition of advanced statistical analysis and data mining techniques for students interested in doing research that involves considerable quantitative analysis in their dissertation and/or future professional work.
Prerequisites: NST 772 [Min Grade: B] or NST 772 [Min Grade: B]

NST 775. Introduction to Statistical Software Packages: SPSS and SAS. 2 Hours.
Special emphasis of this laboratory course will be on the use of the statistical packages, SAS and SPSS, in the creation of the data files, data entry, manipulation of data, descriptive analysis and selected statistical techniques.

NST 776. Linear Models For Clinical Nursing Research. 3 Hours.
Linear Models For Clinical Nursing Research. This course is designed as a survey course on the application of advanced General Linear Model and related techniques in health care research. The course will focus on application to research questions of importance to nursing, with an emphasis on practice-related problems.

NST 777. Multivariate Statistical Methods For Clinical Nursing Research. 3 Hours.
Multivariate Methods For Clinical Nursing Research. This course is designed as a survey course on the application of multivariate techniques in health care research. The course will focus on application of multivariate statistical methods to nursing-related research questions, with emphasis on interpretation within clinical nursing research problems.

NST 778. Data Management. 2 Hours.
A hands-on exposure to data management with common statistical software packages, including concepts of types of variables, data entry and cleaning, importing and converting datasets, merging and concatenating datasets, sorting, sub-setting, and producing reports and descriptive statistics.

NST 779. Statistical Modeling I - Linear Models. 3 Hours.
This course is designed as a survey course on the application of General Linear Models and Logistic Regression, with emphasis on health-related problems. These techniques are covered in detail including appropriate diagnostic and remedial measures.
Prerequisites: NST 758 [Min Grade: B]

NST 780. Statistical Model II - Topics in Multivariate Analysis. 3 Hours.
This course will extend concepts introduced in NST 779: Statistical Modeling I - Linear Models into multivariate applications. This course is designed as a survey course on the application of common multivariate methods, with emphasis on health-related data.
Prerequisites: NST 779 [Min Grade: B]