Official Course Document FCS 5901
School of Family and Consumer Sciences

Course Number and Title: FCS 5901 **Statistical Analysis in Family and Consumer Sciences**

1. **Course Description:** This course will cover basic statistical concepts in Family and Consumer Sciences where students learn to apply statistics to professional practice and develop a more sophisticated understanding of the research process.

Credits: 3 credits

Pre-requisites: Full or provisional admission into the MS in FCS, MS in FCS with Dietetics Option or MA in Gerontology programs.

Student Learning Objectives:

1. Apply basic statistical terms, principles, concepts, and techniques in FCS content areas.
2. Apply experimental design, frequency distribution, central tendency, variability, probability theory, and estimation in FCS content areas.
3. Summarize data by computing descriptive statistics and display findings in APA format, using tables and figures.
4. Select appropriate statistical techniques for a given set of variables and research questions/hypotheses in FCS content areas.
5. Test for group differences between means and for association between two variables.
6. Evaluate statistical analyses and findings in published research articles in FCS and related content areas.
7. Enter and analyze data using SPSS or other appropriate statistical software to address FCS related research questions and/or hypotheses.

Methods of assessment of learning objectives:	**Learning Objective(s):**
Discussion and participation in class; in-class exercises (20%)	1, 2, 3, 4, 5, 6, 7
Mid-term/final exam (50%)	1, 2, 3, 4, 5, 6
Application project (30%)	2, 3, 4, 5, 7

Method(s) of course delivery: Face-to-face

Outline of course content and sequence with units of time devoted to major topics:

1. Introduction to statistics, statistical terms/concepts/principles	5 hours
2. Measures of central tendency and frequency distributions	2 hours
3. Variability, probability theory, and estimation	3 hours
4. SPSS	5 hours
5. Descriptive statistics	3 hours
6. How to illustrate descriptive statistics	2 hours
7. Testing for group differences & associations	5 hours
8. Answering research questions	3 hours
9. Critiquing empirical research and professional reports	5 hours

Rationale

In 2008, the School of Family and Consumer Sciences (FCS) implemented a thesis, independent study, or internship component to the graduate program. With this requirement comes an anticipation of a rise in the number of theses produced in FCS. The number of students completing a thesis has increased dramatically over the last five years in FCS (191% increase during the 2003-2007 academic years compared to the 1997-2002 academic years),

and with the new thesis/independent study/internship component there is anticipation that this number will continue to rise. As this is the case, the graduate faculty of FCS support incorporating a required statistical course for all M.S. in FCS graduate students. A statistics course will help FCS graduate students that choose to write a thesis, but it will also benefit all graduate students. This course will provide all M.S. in FCS graduate students with a sophisticated comprehension of the research process, help them to read and evaluate empirical articles, assist them in the assessment of research and program reports, provide them with a stronger consumer foundation, and will facilitate critical and analytic thinking skills.

Faculty contributing to the formulation of this document: Dr. Lisa Taylor, Dr. Rick Wilkinson, & Dr. Kathleen O'Rourke

approved by SFCS Graduate Faculty 04 23 09