FCS 5901
Statistical Analysis in Family and Consumer Sciences

Instructor: Lisa M. Taylor, Ph.D   **Class meetings:** Tuesdays, 7pm-9:30pm
Email: lmtaylor@eiu.edu   **Class location:** 3013 Old Main
Office: 2016 Klehm   **Phone:** 581-8584
Office hours: Tues 6pm-7pm, Wed 2pm-4pm, Thur 1pm-3pm, or by appointment

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.

Course objectives
Upon completion of this course, students should be better able to:
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.

Teaching philosophy
My teaching philosophy developed from my own experiences as a student. When I was in a class where the instructor was passionate about what he/she taught, I was motivated to learn. When the instructor appeared to be approachable, I was more likely to ask questions and seek assistance when I needed it. Additionally, when given the opportunity to apply the concepts learned in class, I mastered the material more effectively. Thus, my own personal teaching style reflects these three basic concepts. I am passionate and enthusiastic about the topics I teach, I strive to be approachable both in and out of the classroom, and I use a problem-based learning model that encourages critical thinking skills.

Course textbook
Sweet, S.A., & Grace-Martin, K. (2008). *Data analysis with SPSS: A first course in applied statistics (3rd ed.).* Boston, MA: Pearson.

> **Recommended text:** American Psychological Association (2009). *Publication manual of the American Psychological Association (6th ed.).* Washington, DC: American Psychological Association.

Course evaluation
Exams (200 points)
Two take-home exams will be administered during the course of the semester. Each exam will be worth 100 points for a total of 200 points.

Discussion and participation (30 points)
Students are expected to attend class and participate in class discussion. At times, assignments will be given both in and out of class and students must be present to participate in the assignments.

Experiential Learning Project (50 points)
Students will participate in an experiential learning activity as a class. Specific instructions will be discussed in class and made available on WebCT.

Statistical application assignment (120 points)
Each student will design an original research project, analyze data, and report findings in both a written and oral format, following the APA Publication Manual for formatting guidelines. Assignments are worth 120 points in total, but various parts are due throughout the semester (refer to schedule). Specific instructions for each part are available on WebCT.

Evaluation activity	Possible points
Discussion and participation	30
Application assignment	120
Group project	50
Exams (2)	200
TOTAL POINTS POSSIBLE	**400**

Policies and procedures

♦ Students are expected to **attend class lectures** that will help clarify concepts from the textbook and present supplemental information in reference to the various topics covered in the book. Additionally, lecture material will be included in the examinations and in-class assignment/activity points can only be earned by being present and participating in the discussions and activities.

♦ Students are expected to **ARRIVE TO CLASS AND EXAMS ON TIME**. **Arriving late is disrespectful to the instructor AND your peers. In addition, class participation points will be reduced if students are tardy on a regular basis.**

♦ Cell phones and other technology are to be **TURNED OFF** during class.

♦ Students will be unable to make up an exam without documentation of an excused absence. A slip from Health Services does not, necessarily, equate to an excused absence. Students are to contact the instructor if they have to miss an exam due to an emergency or illness.

♦ Make-up work for **missed in-class assignments and activities** is at the discretion of the instructor and **only** in the case of excused absences (as defined by the University).

♦ **All written assignments** are to be submitted via WebCT. **Late written assignments** will be docked 20% of the total points for each day they are late - including weekend days. Assignments turned in more than one week late will not be accepted. The instructor will not be responsible for assignments turned in late or improperly.

♦ If you have a **documented disability** and wish to receive academic accommodations or services, please contact Julie or Kathy in the Office of Disability Services at 581-6583. If you need to know where the areas of rescue assistance are located in case the building must be evacuated, please see me.

♦ It is assumed that students will honor the tradition of **academic honesty**. Should incidents of suspected classroom cheating or plagiarism occur, University policy as outlined in the "Academic Integrity" section (found under "Academic Regulations) of the 2005-2006 Eastern Illinois Undergraduate Catalog (http://catalog.eiu.edu) will be followed. Students need to understand that **PLAGIARISM IS CHEATING** and that your instructor will report all incidents of plagiarism and cheating to the Office of Judicial Affairs.

♦ Students are responsible for checking their **WebCT email accounts** regularly (at least three times a week). Any changes to the schedule will be announced via WebCT email. If students have difficulties accessing or using WebCT, it is **their** responsibility to contact the IT Help Desk at 581-HELP.

Tentative schedule – <mark>LAST REVISION ON 8/20/12</mark>

This schedule is tentative and subject to change. Please check your WebCT email account for changes to the schedule (at least three times per week). This syllabus will always include a date of revision so you will know whether or not you have the most recent version.

Date	Topic	Reading assignment, exams or assignments due[†]
8/21/12	➢Introduction ➢Course overview ➢Why do we need statistics? ➢The importance of mastering APA	Sweet & Grace-Martin, ch 1 (pgs. 1-2) APA online tutorial: http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx
8/28/12	➢Basic statistical terminology, concepts, & principles	Sweet & Grace-Martin, ch 1 (pgs. 3-10) Sweet & Grace-Martin, ch 2
9/04/12	➢Survey construction	***Research project outlines due (25 pts)**
9/11/12	➢Variable construction	Sweet & Grace-Martin, ch 4
9/18/12	➢Central tendency & frequency distributions ➢Descriptive statistics	Sweet & Grace-Martin, ch 3
9/25/12	➢Linking research questions/hypotheses to analysis	Sweet & Grace-Martin, ch 3
10/02/12	➢**MIDTERM EXAM (no class – can use lab)**	**MIDTERM EXAM due by 9:30pm**
10/09/12	➢Correlations and independent sample *t*-tests	Sweet & Grace-Martin, ch 4 & ch 6
10/16/12	➢Chi-squares and ANOVAs	Sweet & Grace-Martin, ch 9
10/23/12	➢NO CLASS – meetings with Dr. Taylor	***Research questions, surveys, and proposed statistical analyses due (25 pts)**
10/30/12	➢NO CLASS – meeting with Dr. Taylor	
11/06/12	➢Group project	
11/13/12	➢Group project	
11/27/12	➢Review	***Group project due**
12/04/12	➢Presentations	***Research proposals and PowerPoint presentations due by 7pm**
12/11/12	**FINAL EXAM (class can use lab)**	**FINAL EXAM due by 9:30pm**