

**CEP 932: Quantitative Methods in Education Research I**  
**Fall 2008**

Dr. Amita Chudgar ([amitac@msu.edu](mailto:amitac@msu.edu))

**Class time and location**

Tuesdays, 4:10-7:00 pm  
C212, Wells Hall

**Office hours and location**

Tuesdays, 12-1 pm  
426, Erickson Hall

**Teaching Assistant (Office hours: Mondays and Fridays, 1- 2:30pm, 4<sup>th</sup> floor EH, student area across faculty mailbox/copier)**

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Jonghwan (Jay) Lee [leejon20@msu.edu](mailto:leejon20@msu.edu)

**Course description**

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This course provides an introduction to data analysis and statistical inference in education research. Students learn to describe data, to select and compute statistical estimates and hypothesis tests, to use SPSS computer package to accomplish these tasks, and to interpret and write about the results of the estimates and tests. Knowledge of basic algebra is needed.

**Grading**

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Grades will be assigned based on the percent of the total possible points that you receive on the final exam and the assignments [4.0 > 90%, 3.5 > 80%, 3.0 > 70%, 2.5 > 65%, 2.0 > 60%]. The scores for exams and assignments are weighted as follows:

- 6 Quizzes, 5 points each = 30 points
- 6 Homework Assignments, 9 points each = 54 points
- Final exam = 16 points

**Assignment submission policy**

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- We will post the assignment on Wednesday every week. The completed assignment will be due back next Tuesday in class.
  - Quizzes are open-book and open-note, and you may use calculators. You are expected to work individually on the quizzes. Make-up quizzes will only be permitted at the discretion of the instructor.
  - Some of the later homework assignments will contain tasks and questions that will require you to use a statistical computer program SPSS that is available on MSU microlab computers (use of other statistical programs must be approved by the instructor).
  - You may work in groups of three or less on your homework assignment. You will submit a single copy of the group homework with all the names listed; all group members will receive the same grade. Except at the discretion of the instructor (arranged prior to the due date), all assignments must be submitted at the beginning of class on the day that they are due.
  - You are not required to work with the same group for every homework

**Textbook**

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Ott, R.L. and Longnecker, M. (2001). *An Introduction to Statistical Methods and Data Analysis* (5th ed.). Pacific Grove, CA: Duxbury.

## Resources for SPSS

George, D. & Mallery, P. (2005). *SPSS for Windows Step by Step: A Simple Guide and Reference* (5<sup>th</sup> ed. Covers SPSS 12.0; 4th ed. Covers 11th edition).

Web resource: <http://www.ats.ucla.edu/stat/spss/>

## Tentative course schedule (subject to changes)

Week	Date	Topic	Due
1	Aug 26	Introduction, Data collection, sampling	
2	Sep 2	Descriptive Statistics	Q1
3	Sep 9	Descriptive Statistics	Q2
4	Sep 16	Probability Distribution	H1
5	Sep 23	Probability Distribution	
6	Sep 30	Comparing means Z-tests and t-tests	H2
7	Oct 7	Comparing means Z-tests and t-tests	Q3
8	Oct 14	Comparing means Z-tests and t-tests	Q4
9	Oct 21	ANOVA	H3
10	Oct 28	SPSS workshop (BCC-N012)	-
11	Nov 4	Categorical Data: Chi-square test	H4
12	Nov 11	Categorical Data: Chi-square test	Q5
13	Nov 18	Correlation and Regression	H5
14	Nov 25	Correlation and Regression	H6
15	Dec 2	Correlation and Regression	Q6 (Dec 3, by 5pm)
16	Dec 10	Final Exam (5:45-7:45 p.m)	

*Please note: MSU seeks to ensure that its programs are accessible to all persons. Students in need of special assistance or an accommodation regarding any of the course requirements as outlined in the syllabus and discussed in class are advised to notify me immediately. We will meet privately to discuss a resolution of your issue, which may or may not include an appropriate referral. Confidentiality will be maintained regarding your special needs.*